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THE WISCONSIN ARCHEOLOGIST

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ARCHAEOLOGICAL EXCAVATIONS IN POLK, BARRON, AND RUSK COUNTIES

Robert R. Jones

A report concerning archaeological excavations carried on by University of Wisconsin Extension Center students as part of the work of the Anthropology 3 class work, in the spring of 1947.

ACKNOWLEDGEMENT

MEDICAL DEPT.

At the very outset of this report the writer wishes to thank those whose cooperation made the work possible. Dr. H. E. Perrin and Mr. Allen Peabody reported the existence and location of the Alden mound group, and helped arrange for permission for the students of the New Richmond center to dig there. Mr. Ralph Goldsmith, the City Editor of the Ladysmith News, for favorable publicity, and for information as to the Nater mound group later partly excavated by the students of the Ladysmith Extension Center, and to Mr. John T. Matiesen and Mr. Jack Baltes, for information as to the Calkins Mound group. Mr. Matiesen also helped to secure permission from Mr. Calkins for the excavation of two of the mounds of this group and donated copies of maps showing the position of the Nater, and of the Calkins mound groups.

Particular thanks are also due to the owners, or custodians of the farms upon which the three mound groups are located. The farm upon which the Alden mound group is located is part of an estate. Mr. Ole Ausen of Star Prairie was custodian. The Nater mounds are located on the farm of Mr. George Nater, of Bruce, Wis. The Calkins mounds are located on the farm of Mr. George Calkins, of Chetek, Wis. It is operated by Mr. George Calkins Jr. During their tenure of the land concerned, they have protected the mounds from digging by

unqualified persons, and once they wereassured that the work would be properly done, they gave permission to dig, and full cooperation. The cause of Archaeology has been injured much more by those who give permission to dig too easily than by those who refuse all permission. A mound excavated is a mound destroyed, and few mounds have escaped injury at the hands of relic hunters.

INTRODUCTORY

The excavations that form the subject for this report were a by-products of the Anthropology 3 course offered by the University of Wisconsin Extension Division during the spring of 1947. This course was taught at the Rice Lake, Spooner, Ladysmith, and New Richmond centers, by the writer of this report. Covering but one semester, this course could include little more than a bare smattering of the several fields into which anthropology is divided. The method followed in teaching Archaeological Field methods was as follows: Two lectures were given, each followed by a quiz session in which the blue print records of cross sections and floor plans of actual University of Chicago excavations were studied. Hectograph copies of the lectures were given out for study to each student. Next, a full seventy-five minute period was given over to the showing, in slow motion, of 16 mm. moving pictures of work on these same excavations by the University of Chicago Field Party, in the vicinity of Lewistown, Ill. These were taken by the writer of this report himself, when a member of this party, with this specific purpose in mind. Finally, an Archaeological Field Day was arranged for each center. Here the students had a full day of learning by the laboratory method, taking part inactual excavation work.

It was originally planned to hold field days in the first semester also, at Mauston, Hillsboro, Sparta, and Richland Center areas. An auto accident in which the author of this paper was hurt, and had his car badly wrecked, interfered with this plan.

The narrow margin of time between the thawing of the ground and the end of the quarter was a limiting factor. Frozen ground impeded work on the Alden mound considerably. April 25th. It was also present to a slight extent in the exca-

vation of the Nater mound, May 2nd The Caulkins mounds were free of it when dug May 9th and 10th.

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METHODOLOGY

The methods used were those followed by the Archaeological field parties of the University of Chicago. First, the mound was staked off at five foot intervals. The stake lines running north and south, unless circumstances made some other axis preferable. The central line of stakes, running over the center of the mound, was designated line C. The first parallel line to the right, line R1, the second, line R2, The first cross line, tangent to the edge of the mound, was labeled line 0, the one five feet farther in was line 5, the one ten feet in, line 10, or the 10' line, etc. Each stake was labeled according to the lines that intersected there, as stake OC, stake 5L2, etc. Each of the squares was named for the farther stake on the right side. For example, the square bounded by stakes 5C, 5R1, 10C, and 10R1, was called 10R1. Next, the level was set up. Here some improvisation was necessary, as the writer of this report owns no surveyer's level nor transit, nor could one be borrowed. Accordingly , a plate was set on the bottom of a carpenter's level and tapped to take the screw of a ball and socket clamp type camera tilting table. Rifle type sights were put on the upper edge of the level on both ends. This was clamped to the stake driven in at the highest point of the mound. One student would use the rod, another would look alongs the sights, a third would check the bubble to see that the level wasproperly horizontal at each shot, while a fourth took notes, wrote down the readings as given by the rodman. In this manner the height of the mound was noted at each stake as so many feet and inches minus the datum plane. In a few cases, where resetting was necessary, the figures given were plus the datum plane. The depth of materials found was also recorded by this means as well as measured in depth below the surface. The position of materials found was checked by triangulation, as measured from two or three named stakes. If two, the square was also noted. The depth of the excavation was somewhat below the subsoil line. The floor of the excavation was scraped level and studied

for evidence of deeper burials. At each five foot section line the cross-section was trimmed down straight and perpendicular, and the profile and stratfication studied and charted. Several charts of this kind are included as part of this report. A floor plat of the mound was kept and all materials found were entered on it and in the field book.

SUPPLEMENTARY REPORT

THE ALDEN MOUND GROUP

This mound group consists of two rather large mounds, of dome shape, fifty-five and sixty feet in diameter by nine high. They are approximately one hundred and twenty feet apart. It was stated by Dr. Perrin that Indian garden beds of rather large size formerly existed in the field a few rods beyond them. Years of cultivation have removed all traces. They are situated on the S.W. ¼ of the N.W. ¼ (except portion south south and east of highway 65) of section 29, town 32, range 17, Alden Twp., Polk County, Wis. Aproximately fifty rods west of the Alden Town Hall and perhaps twelve rods north and west of the Apple River. They are locally called the Wagon Landing Mounds because of a postoffice of that name that formerly stood approximately a mile and a half to the eastward. It is about three miles north of Star Prairie, on Highway 65.

Both mounds had been pitted. The one in which excavation took place was dug into eight years previously by Dr. Perrin and Dr. Boyd Williams of Hudson, Wis. Both were present as visitors while excavations were taking place. They reported having found three flexed burials at an approximate depth of two feet, near stake C25. They mentioned that the skulls and ribs were poorly preserved.

By reason of the large size of the mound it was not staked off in its entirety. Three stake lines were run across it: line C. line L1, and line R1. The record of the contour was taken with a level, as earlier described.

Work was started on both ends of the surveyed area, one group starting on line O, and the other working back from the 55' line on the opposite side of the mound. They both worked on the ten foot face between lines R1 and L1. The

group digging between the 0' line and the 5' line found the ground largely frozen. The other party found digging conditions better. Consequently, the former group discontinued digging, and all watched work or or dug with the group on the 55' foot line side.

Work was carried on according to proper methods, but the results were negative. No bone or artifact of any kind was found. This was probably due to the fact that one day was too short a time to make a fair sampling of a mound that size, particularly when frozen ground made the work more difficult. It could not have been postponed without interference with the other Field Days. All had to be held before the final examinations. Frozen ground, moreover, was not expected, as the weather had been mild for some time.

Two profile faces were trimmed down and studied. The humous layer was thick and dark with few stones. The subsoil was a dark brown clay with some stone. The line between them was not distinct.. The 50' section between 50L1 and 50R1 had no features of interest. The 45R1 to 45L1 section had one feature, what appeared to have been a separate lens of a clay similar to the subsoil, but enclosed within the humus. It may have been accidental, a few baskets full of subsoil dumped in with the topsoil in the erection of the mound. No artifacts or bones were found in it.

This site may repay further investigation.

THE NATER MOUND GROUP

The Nater mound group is situated on the farm of Mr. Nater, in the N.W. ¼ of the N.W. ¼ of section 2 of town33 N. range 8 W. Big Bend town of Rusk county. They stand on the north bank of Soft Maple creek, and a few rods west of Highway 40. The land on which they are located has never been plowed. However, all three of the mounds have been badly pitted. About 40 years ago a lumber camp was situated a few feet away. Mr. Nater stated that the lumberjacks had dug into the mounds at that time. He did not know, nor was it possible to ascertain from other sources, what was found by them, if anything. In the level field north of the mound group is a village site. Mr. Nater has a collection of Indian

artifacts from there. A careful examination of this site was difficult since it was covered with a good growth of alfalfa. Enough quartzite chips were found there by the writer to confirm that belief. The chips were of stone similar to the artifacts found there by Mr. Nater and the other objects found in the excavation. The exact position of this village site can better be ascertained by a more careful search; it was not more than a few feet north of the site. The mounds stand at the crest of a rather sharp slope extending down to Soft Maple Creek forty-two paces southward.

By reason of a folsomoid find of some interest, made during the digging here, more particular attention was devoted to

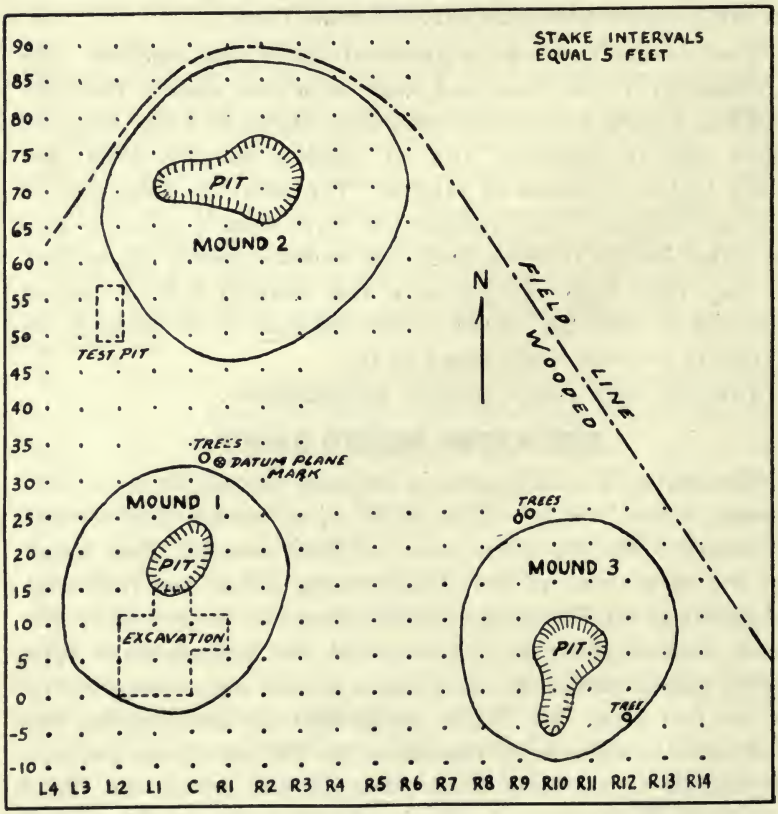

Plate No. 1. Nater Mound Group.

charting this mound group. (See Plate No. 1.) The three mounds, being close together, were surveyed as a unit. Mound No. 1 was completely staked out and surveyed, mound No. 2, partly so. Lack of time prevented the survey work being completed on the field day. The writer of this report, accordingly, revisited the site, alone, to check the work, and at that time completed the work of charting the group as far as it could be done with steel tape and compass. At this time also, the collection from the village site was photographed and tracings were made showing actual sizes of the artifacts.

A slight rise in the ground was noted between 50L2 and 60L2. From its shape it was thought to be, possibly, and individual burial. A party was sent to excavate it. Nothing of Indian origin was found. It was continued as a test pit to the depth of three feet. The topsoil layer was six inches thick. Below this was a subsoil of sandy gravel and, at the bottom of the pit, clear white sand was met with.

A mark on one of the trees growing on the edge of mound No. 1, shows the exact position of the datum plane for possible future reference. The depth of the pits left by the lumberjacks is also shown. The exact position and area of these pits is shown in Plate No. 1.

It may be noted that from 0L2 to 0C there was little of interest, as was to be expected at the bare periphy of the mound. The next face, extending from 5L2 to 5C, a darker layer appears between the sandy gravel subsoil and the topsoil. This contained bits of charcoal. It tapered out between 5L1 and 5L2. The artifacts and skeletal material found all came from between the 5' and the 10' lines. Little digging took place beyond the 10' line. the partial excavation of square 15C was partly to see how far the dark layer extended, and partly to provide drainage for the pit left by the lumberjacks. Time was the limiting factor. The profile between 10L2 and 10C is of particular interest. Almost directly below stake 10L2, on the edge of the excavation, some traces of human bone was found at an approximate depth of 27''. Careful examination revealed it to be bone

and the proximal end fragment of a tibia. No further effort was made to dig there, as later excavators may be able to do better by other methods. Below 10L2 and extending most of the way to 10L1 was a fire pit in the bottom of which a considerable amount of charcoal was mixed. The black layer noted in the 5' face was also found. It became darker under stake 10C, where charcoal was found mixed in. The profile extended for two feet beyond 10C. The later cross profile from 10C to 15C revealed that the dark layer tapered out a little over two feet beyond 10C. This definitely was not a result of the digging by the lumberjacks whose digging did not exend that far.

At a depth of two feet along near5C and 10C, was a less distinct layer of somewhat darker earth, two inches in thickness.

Plate No. 2. Artifacts from the Nater Mound Group.

In this latter layer of burned earth the first artifact was found. It was a fragment of pottery of early woodland type. It lay two feet below the surface and 5 feet 8 inches below the datum plane. It was 10 feet, 7 inches from stake 10L2 and 4 feet, 8 inches from stake 10C in square 10C at the top edge of the dark layer. This sherd is shown in clear detail in plate No. 2.

The second artifact found was a small quartzite point, of stemmed type. It lay 3 feet, 11½ inches below the datum plane, and 25 inches below the surface. It was 5 feet, 7½ inches from stake10L1, and 2 feet, 9 inches from stake 10C. It was in square 10R1. This item matches in respect to material with many of the artifacts found by Mr. Nater on the adjoining village site. It is a stone found plentifully in the vicinity. See: **Geology of Wisconsin** Vol. IV, p. 577, 579. This point is shown on plate No. 2.

The third find is of particular interest, a dark reddish point of fluted or folsomoid type. This lay 3 feet and 10 inches below the datum plane and 2 feet, ½inchbelow the surface. Its position was 2 feet, 1½ inches from stake 10C and 4 feet, 3 inches from stake 10L1, and 7 feet, 2 inches from stake 5R1. It is also shown on plate no. 2.

The fourth find was a broken point of flint. It came from 25 inches below the surface. It was 5 feet 10½ inches from stake 10L1 and 2 feet, 1 inch from 10L1.

The fifth find was beleived at the time to be aflake of quartz. Its position was not noted at the time. A more careful examination shortly after it was found revealed it to be a fragment of a point, so all who had seen it found were asked o point out its original position. It was agreed that it lay somewhat deeper than the others, and between one foot and two feet westward, and about six inches north of the folsomoid find.

No other artifacts were found, but a second, deeper fire pit was found in square 10L1, at a depth of 27 inches. It was 2 feet in diameter, and contained a fair amount of charcoal. It was nearly flat, unlike the deeply concave pit found under stake 10L2.

The cross section taken horizontally along the floor of the excavation revealed nothing of interest.

DISCUSSION OF FINDS

At the time of the first find, that of the potsherd, the writer of this report was present, and saw the material in position Mr. Homer Stevens, the Zoology instructor in the same extension center who had joined the party, was at the time digging in the space next to the one where the find took place. He also saw it and the other finds in position. both he and the writer of this report remained watching the digging and checking the records taken until the last item was found.

The Folsomoid point was not photographed in position as it should have been, as its flutings were not observed at first glance. In order to give an idea as to its position a jacknife was placed on the 10 foot face in a position due north of the find before photographing.

The materials from Nater mound No. 1 were examined by several competent archaeologists. The included: Dr. Kenneth Orr of the University of Chicago Dept. of Anthropology. Dr. George Neumann of the University of Indiana, Dr. Wilton H. Krogman, now of the University of Pennsylvania, and Mr. William McKern, Director of the Milwaukee Public Museum. All agreed that the pottery, and the other items, excepting the fluted point, are of early Woodland type. They likewise agreed that the fluted point is of definitely Folsom type. Mr. McKern further classified it as of the Eastern variety of this type.

In order to better understand the fluted point, it may be compared with the Folsom material. The booklet, **The First Thousand Yuma-Folsom Artifacts** by E. B. Renaud of the University of Denver Department of Anthropology, 1934. covers the matter in some detail. As to size, the Folsom points described by Mr. Renaud range from 17 to 65.27 millimeters in length. His average for the Folsom points that he classifies as type 5-o, was 45.41 millimeters long. (Page 9) This type is characterized by flutings extending for two-thirds or more of the length of the point. This compares with the length

of the point being discussed, 43 millimeters. As to breadth, his average for the type5-c is 21.94 millimeters. The range being from 14 to 32.5 millimeters. The breadth of the point being considered is 17. millimeters, well within the range. His class 5-a and 5-b points, with shorter flutings are larger, averaging 65.27 and 67.20 millimeters in length and 25.78 and 26.40 millimeters in breadth. As to base he states on page 8 that "Folsom points never have a convex base, very seldom a straight one, most often a concave base, much more frequently deeply concave." The base of the point being studied is deeply concave. As to the relative frequency of types 5-a, 5-b, and 5c, the three Folsom types, in the entire Yuma-Folsom series they are for the total of all states, 7.67, 5.54, and 14.83 respectively. The point being discussed appears to fit into this most numerous 5-c group.

In the July, 1936, issue (Vol. XLIV No. 3) of the **Ohio State Achaeological and Historical Quarterly**, page 240, appears an article: "The Folsum Phenomena as seen from Ohio", by Dr. H. C. Shetrone. Here a distinction is drawn between the "true Folsom point" and the "Folsom-like" point. In describing the latter, he quotes E. B. Howard as follows: "These Folsom-like points are generally leaf shaped with concave bases exhibiting a number of variations—some deeply concave, some shallow, and still others with a constriction just below the base forming a sort of 'fish tail.' Most of them are larger than the true Folsom point, heavier and thicker, and the chipping is never as fine. The grooving is more apt to be irregular, and to end more abruptly than on the Folsom point." This is of little service in classifying an individual point as one or the other. Much work has been done in this field since 1936 that is not available to the writer of this report, so the material in quesion is provisionally classified as Folsomoid. The point is on hand for further study.

The matter difficult to explain is how to account for its being found in association with Early Woodland materials supposed to be of considerably later origin. In the first place, there appears to be little doubt as to the fact of their being so associated. The Folsomoid point, the potsherd, the quartz-

ite point, and the fragment of a flint point were all found at very nearly the same depth, on the top edge of or in the upper part of the same thin, dark layer. This layer, and the earth above is revealed no traces of having been disturbed. The articles other than the Folsomoid point appear to match the stone materials collected by Mr. Nater from the village site near by. Mr. Nater collected no specimen of pottery.

One rather remote possibility is that the point could have been in the earth carried to form the mound without the knowledge of the mound builders. In this case it would be from an earlier, perhaps a much earlier period. A moreprobable theory is that some member of the group that erected the mound may have picked up a point dating from an earlier period and used it, and that it may have come into the mound the same as any other artifact used by the builders. Then, it may have been traded in, perhaps from a distance. Traded goods are not so unusual in mounds. In that case one would suppose that this type of work had persisted for a long period in some small and probably isolated area. There remains the possibility that the point may have been made by the builders of the mound. This would mean either that pottery of the Early Woodland pattern was made much earlier than has been supposed, or that the Folsomoid type of point was made much later than has hitherto been believed. There even could have been some connection between the late Folsom and the Early Woodland cultures. In this connection the reported finding of Folsomoid materials in association with materials closely related to Early Woodland, by Miss Madeline Kneberg and Dr. T. M. N. Lewis in their excavations in Tennessee, may be mentioned.

In conclusion, it may be noted that Mr. Nater has agreed to protect the mounds from unqualified diggers, and that there is a particular need for further excavations. This mound group could yield data of importance. In view of the very poor preservation of the skeletal material, the method used by the Milwaukee Public Museum excavation in taking horizontal cross sections appears preferable to the Chicago method used here. In that manner the positions of the burials

could be ascertained even though little more than a discoloration remained.

THE CAULKINS MOUNDS

The Caulkins mound group is a large one comprising over twenty-five mounds. They are of dome, or of conical, shape for the most part, and range from approximately twenty to forty feet in diameter, and from two to eight feet in height. It would have taken more than the total time available to make a fairly adequate chart of this extensive group, all, or nearly all of which, unfortunately, have been pitted.

This group of mounds is located on the farm of Mr. George Caulkins and operated by his son, George Caulkins, Jr. It is situated in the North-west quarter of section 13, township 33 north, range 11 west. It lies on a side road a short distance eastward of State Highway 53 and near the western shore of Prairie Lake. It lies less than three miles north of Chetek, in Barron county, Wisconsin.

Much of the highly regrettable prior digging in the mounds was the work of the late William C. Carter, a local amateur archaeologist, well over thirty years ago. His brother, Mr. Byron Carter was contacted in an effort to find any notes that he might have left. He appears to have kept something of this kind. After his death they were destroyed as far as could be ascetained. Some of his collection, however, was kept, but there is no record as to where each piece came from. All is, however, believed to be of local origin. Part of this collection was framed and exhibited in the window of the Indianhead Bank at Chetek. It may be mentioned that at least one of these items was of Folsomoid shape but lacked the fluting on the side visible in the sealed frame. It recalls the Yuma points. Mr. Matiesen stated that Mr. Carter had found what he believed were the remains of two distinct cultures in the Caulkins mounds.

The two mounds to be excavated were designated by Mr. Caulkins but appeared to be satisfactory. The first had been more than half removed in building the town road that ran past the group. The part that remained did not reveal any traces of prior pitting, and any materials that might be

inside could be expected to be in a better state of preservation than those in which pits had admitted water. Mound no.2 was likewise satisfactory for much the same reason. It had been pitted the preceding summer by unknown parties, digging without permission. It could not be ascertained whether or not this pit was an extension of earlier work. However, no trace of earlier pitting was visible. The damage being obviously recent, the time was too short for much damage to have resulted to the contents of the mound, if any. Both were satisfactory as to size.

The field day for the Rice Lake Extension Center was held on May 9th. Mound no. 1 presented a problem. Line C was run from a foot to eighteen inches from the part removed, parallel to the road. Lines R1 and R2 were sufficient to cover all that was left of the mound. A five foot trench was run between lines C and R1. Separate parties began digging at opposite ends. Meanwhile a second party was sent out to survey and start work on mound no. 2 which was not far away. The writer of this report divided his time between the two groups.

Mound no. 1 was not productive. When the two parties met near the 25C-25R1 face, nothing had been found except some charcoal and a lone projectile point. Most of the cross-sections revealed nothing of interest. Along the 15' and the 20' lines darker layers and charcoal appeared.

Later inquiry located a member of the highway crew that had removed the rest of the mound. He stated that nothing either of skeletal material or of artifacts was found by them during the work.

The Rice Lake students that were working on mound no.2 did not find anything either. They had time to do little more than begin the work.

The following day, May 10th, the Spooner students took over the work. The L1 to R1 face opened the preceding day was continued and a new trench between the 10' and the 15' face started from beyond to meet the others at the L1 line, was opened.

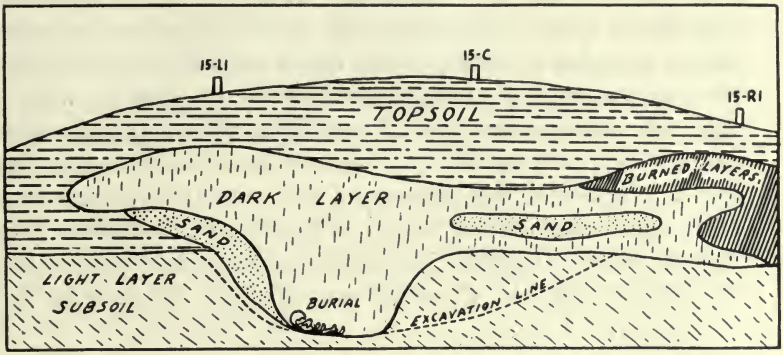

Plate No. 3. Profile of Caulkins Mound

Plate No. 4. Disarticulated Burial. Caulkins Mound Group.

Along the cross-section profile studied between10L1 and 15R1 a darker layer was encountered. The 15' face was of more interest. See Plate No. 3. Sand layers were found in the dark layer, and definite burned layers,. The latter were below stake 15R1. There was a definite and significant dip

in the subsoil line, and the study of the floor of the excavation revealed a definite floor pit north of the middle of sqare15C. There was also a definite break in the sand layer. Accordingly the excavation was extended downward as soon as work on the face was completed. A multiple disarticulated burial, containing parts of two individuals was exposed. See Plate No. 4. The burial was uncovered by students working under close supervision by the writer of this report, the entire group paying close attention. No artifacts, nor other burials were found in the mound. Charcoal was plentiful below stake15R1, in the burned layers.

The dark layers noted in the profile charts of both Caulkins mounds may well be camp debris that entered into the composition of the mound. The subsoil was sandy with some mixture of gravel.

As to the culture of the builders of the Caulkins mounds excavated, there is little that is diagnostic. The lone artifact is a stemmed point of a widely distributed type. Of pottery no fragment was found, nor was there any pottery (found by others) located that could be attributed to this mound group. The Carter collection is undoubtedly in large part from this group, but which items? The burial appears to be of Woodland type, the mounds dug may then be provisionally classified as Woodland type.

A mound group as large as this, in a position as prominent, has in all probability been reported, very likely under another name. There may be a highly interesting account of it somewhere. The pitting certainly does not look like the work of an archaeologist but some of the early workers may have used methods now considered highly objectionable. Without doubt other collectors than Carter have also dug there; their collections might yield some information. A search of the locality might reveal one or more village sites, or possibly, such sites could have been flooded when the lake level was raised. As the final examinations were given the week following the work on the Caulkins group, the writer of this report had little opportunity to follow the matter up, interesting though it is.

APPENDIX

The Alden mound was left unrestored Mr. Ausen was willing to have it left ready for further excavations if the course was offered at the Center the following year. It would have been difficult in any case, as it was far and time was short.

The Nater mound was left likewise in its partially excavated condition with the permission of Mr. Nater. He, as well as the writer of this report, hopes that further excavation can and will be undertaken.

Caulkins mound no. 1 was not restored as Mr. Caulkins wished to have the mound removed in any case. He stated that he intended to use the refill to restore the other mounds; to fill the pits left by Mr. Carter and others who had dug into the mounds.

Mr. Caulkins did wish to have the second mound restored. Mr. Caulkins, Jr. offered to help with his tractor. Accordingly, after the class closing reports had been sent in, the writer of this report borrowed a horse scraper from a building contractor at Barron, and Mr. Caulkins Jr. hitched his tractor to it. In a couple of hours the refill was back in place to the satisfaction of the older Mr. Caulkins.

The four archaeological field days were intended to serve two purposes. First they were an effective method whereby some smattering of archaeological field methods could be taught. In this way they were highly effective. Almost without exception the students each revealed satifactory to excellent progress along this line in the final examination. Second; they were a highly effective method of stimulating student interest. And finally: they unexpectedly did reveal something of interest to archaeology in general.

THE WISCONSIN ARCHAEOLOGICAL SURVEY

David A. Baerreis

One indication of a growing interest in Wisconsin archaeology is the recent formation of the organization known as The Wisconsin Archaeological Survey. Since the state already possesses groups active in this field, it seems important to state the nature and function of this new organization and its proposed relationship to the institutions within Wisconsin having similar interests. Its nature, however, can only be understood in terms of the conditions which led to its formation. These will be sketched in briefly.

With the conclusion of the war, we have seen a return to those interests, including archaeology, which held the attention of the citizens of the state in the pre-war period. This has also been reflected in the colleges and universities where not only has there been an increasd enrollment but also an enlarged teaching and research staff. As a result, Wisconsin now has more professional workers who are interested in studying the archaeology of the state than in the past.* Coupled with this, there is a growing interest among advanced students who want to know the methods and techniqes by which prehistoric Indian sites are excavated. Inevitably we shall see a considerable expansion of individual projects involving archaeological excavations. While not attempting to eliminate specific local interests, the Wisconsin Archaeological Survey has grown out of the realization that much the same problems are faced by all the institution and that the solution can most easily be achieved through a unified approach.

In recent years, science as a whole has advanced at a

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*The new positions in the field include the addition of an archaeologist to the anthropological staff at the University of Wisconsin, an anthropologist at Lawrence College, and an increase to form a staff of two members in the Department of Anthropology at Beloit College.

greatly accelerated rate in large part due to a cooperative approach. The development of the atom bomb, for example, could hardly have been accomplished in such a short time had not scientists from many institutions pooled their resources and knowledge for the solution of a mutual problem. Although we tend to think of such cooperative activity primarily in terms of modern research on atomic energy, it is also a marked tendency of recent research in those fields studying man. We have had examples of how cooperative activity in the past has expedited the solution of archaeological problems in the conferences on midwestern archaeology sponsored by the National Research Council.

Obviously the problems of Wisconsin's archaeology are not comparable in scope to thos involved in the utilization of atomic energy. Yet when we make an estimate on the one hand of the amount of work needed, and on the other, of the resources available to accomplish the work, the comparison with the atomic energy program is not inept. In 1939*, it was reported that there were about 12,000 mounds in the state. Despite this rather impressive number, those whose total contents have been accurately reported certainly are not very great. Several varieties of fluted points have been found in the state suggesting the possible presence of early man, yet this page of the state's history still remains a blank. The excavation of village sites, so that we might know more of the mode of life of the early inhabitants, is another pressing problem. The crucial links with the historic tribes still remain to be definitely established, though excellent progress has been made in this direction. What, too, do we know of the physical types of the prehistoric Indians!

Aside from these specific problems, of which only a few have been mentioned, one basic need is the continuation of the survey of the state initiated by the Wisconsin Archaeological Society. Other than the desire to complete the picture of the nature and extent of the prehistoric occupation of the state,

*The Wisconsin Archaeologist, Volume 20, No. 3, 1939, p. 56.

there are many practical reasons why that should be the first step. Well known is the destruction of sites by building and agriculture and the consequent need to record information before it is lost. Should proposed dams be constructed that would flood areas containing sites, it is necessary to know the location and importance of the sites so that salvage operations can be carried out. It is in recognition of this primary importance of a comprehensive survey that the new organization is called The Wisconsin Archaeological Survey.

What, then, is the basic purpose and composition of this Survey? The executive committee consists of the professional archaeologists in the state representing institutions interested in research on Wisconsin's prehistory.* Its purpose may be characterized as a desire to coordinate the archaeological activities. Each of these two categories, coordination and cooperation, we may consider in some detail.

It was felt that there was need for coordination first of all in survey activities. In this, as in other fields of research, there can easily be duplication of effort if no liaison organization exists that will disseminate information on the fields of investigation selected by specific institutions as well as, through conferences, pointing out the needed areas of research. There is also a need for a centralized depository of records. Field notes, unpublished manuscripts, and descrip-

*The composition of the committee and institutions represented are as follows:

W. C. McKern	Milwaukee Public Museum
Robert Ritzenthaler	Milwaukee Public Museum
Andrew C. Whiteford	Beloit College
Moreau Maxwell	Beloit College
Chandler Rowe	Lawrence College
W. W. Howells	University of Wisconsin
David A. Baerreis	University of Wisconsin, Chairman.

tions of collections should be made readily available to interested students. Finally there is a need for a uniform site nomenclature. In the past, sites have frequently been referred to under many different names. Since a system giving a sequent series of numbers to all sites in an area is probably most practicable, this operation difinitely requires a central agency that will pass upon all assignments of numbers to avoid duplication.

After stressing the importance of a cooperative approach in all scientific work, it hardly seems necessary to point out its utility in connection with the Wisconsin Archaeological Survey. Individual resources to support field work are slight so that there is need for cooperative activity when an important problem arises. In training students, it is absurd to have separate schools in field techniques when a single session could fill the need more efficiently. Excavations are planned, in which the members of the Survey will cooperate in digging a single site.

Through the mechanism of the survey, other institutions may also join in the solution of common problems. Like other museums in the state, the State Historical Society of Wisconsin is concerned with presenting to the public through museum displays a picture of Wisconsin in the past. To help build up their collections and increase the knowledge concerning them, the Historical Society is contributing financially to the excavation program of the Survey.

The Wisconsin Archaeological Society has already been engaged in compiling information on sites throughout the state. In cooperation with the Survey, it has undertaken the responsibility of compiling all information regarding sites and giving these a uniform numerical designation. There is no question but that the Archaeological Society is the one state organization best equipped for such a project as their accomplishments in the past have already demonstrated. The information that they have amassed on the prehistoric occupation of Wisconsin is also an example of how the cooperative activity of many interested individuals can achieve a great

deal more than independent work. When this stage of the work has reached a point where it is possible to assess the major gaps in our knowledge, the Survey can then step in with an active program to round out that knowledge.

In a way it is unfair to attempt to evaluate the Wisconsin Archaeological Survey at the present time. Though the organization is still in its preliminary stages, the willingness of the participating individuals and institutions to cooperate certainly indicates that substantial accomplishments will be made. Now that the organizational structure is in existence, plans can be made for excavations on a larger scale than had previously been possible. As part of the program, Beloit College will have a party in thr field this summer from which new and interesting information on Wisconsin's prehistory may be expected. As a result of these combined activities, then, we may rapidly achieve a more comprehensive picture of this region's prehistory.

THE WISCONSIN ARCHEOLOGIST

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WISCONSIN ARCHEOLOGICAL SOCIETY

Milwaukee, Wisconsin

Incorporated 1903

For the purpose of advancing the study and preservation of Wisconsin Indian Antiquities.

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PRIMARY FLAKE IMPLEMENTS

By Robert Nero

A large number of small primary flakes included in the Henry P. Hamilton Collection* as "flint chips collected about Two Rivers, Wisconsin," in Manitowoc county, were examined by the writer. Several dozen of the flakes were found to bear secondary chipping occuring in such a manner as to suggest intentional retouching. The objective of this note is to describe these flakes, and to suggest that they are implements.

Flakes from the Hamilton Collection which have been identified as implements differ from recognized forms of flake tool (such as diminutive end-scrapers, etc.) largely in that steep retouching occurs usually in a small, localized area along the edge of the flake, and that typical forms exhibit **no further shaping.** Thus, on the whole, these thin, retouched flakes present a variety of shapes, though generally tending toward the ovular type. They range from 13 mm. to 30 mm. in length (measured from the bulb of percussion to the opposite end).

Retouching on these flakes is usually minute and invariably and distinctively occurs on one side only of the edge of the flake. The chips removed by the process of secondary flaking are nearly similar in depth and angle (see Figure 3). The small areas of retouching are usually also located along edges on the convex or non-bulbar face of the flake, and are most often to be found on the margin opposite the bulb of percussion, as illustrated in A and B (see Figure 1). Examples of a

*This collection is in the possession of the State Historical Society at Madison, Wis. The flint chips are under accession number 6161.

Figure 1.

common angular variation are shown in C and D, type D occuring more frequently than C.

More extensive steep retouching has produced a truncated flake with a straight edge at a right angle to the long axis of the flake (E and F), and a semi-circular edge in G and H.

Flakes I and J (see Figure 2) illustrate retouching near a point, while the convex edge of K repeats a common "type" and contrasts with the concave edge of N. Flake L bears the typical end retouching but also shows retouching along a

Figure 2.

side edge. Side retouching occurs along a curved edge (M), and, rarely, on the bulbar face of the flake (O).

The hinge end of O is the result of cleavage which leaves the end curved upward from the core and rounded. Side retouching occurs most often on flakes which have hinge ends, or broken ends, and intractible surface material adjoining as in P; which suggests that each flake presented limiting factors which determiined to some extent the location of the retouching.

FIGURE 3

Steep retouching on the end of a primary flake on the non-bulbar face.

Steep retouching of thin edges is evidenced more on flint which has a compact composition. Flakes of this kind of material "take an edge" and can be finely chipped, in contrast to more granular or crystaline forms of flint and quartzite. The flake from the Hamilton Collection which have served as the basis for this study are largely of the former material.

Tests were conducted to determine whether fine chipping of an edge, as on the flakes undr discussion, would result from using a thin, unchipped flake as a knife and scraping tool. Pottery, wood, leather, shell, and bone served as test materials. Cutting leather produced little effect on the sharp edges, but cutting pottery, wood, shell, and bone resulted in the removal of chips which were irregular in size and direction and which were broken off on both sides of the cutting edge. Scraping a flake in one direction on the test materials limited the resultant usage chipping to one side of the flake edge. Little effect was

achieved by scraping leather but considerable chipping resulted from scraping wood, pottery, shell, and bone. Pottery caused large and very irregular chipping. Wood, shell, and bone produced more regular chipping, in that order, the regularity of the chipping being evidently dependent upon the surface regularity of the material scraped. Total results, however, were not convincing. Chipping on the test pieces did not appear to approximate the minute and apparently directed retouching which is evident on the considered flakes.

Conclusion: Several small, thin primary flakes included in the Hamilton collection as "flint chips" exhibit secondary retouching, which occurs in such a manner as to strongly suggest the use of the flakes as implements.

THE PEYOTE CULT

By Robert Bischoff

Many cultures of peoples have come and gone from the spotlight of civilization. As they realize that they are finished as a leading influence, a last effort to regain lost grandeur is attempted. Such is the case of our North American Indians. Until the last twenty or thirty years of the nineteenth century, the Indian was ruler and king of his domain. He was pushed farther and farther until what had once been his was now in the possession of the White Man. Coinciding with this period was a growth in the use of peyote.

"Peyote (Nahuatl, Peyotl—or Lophophara Williams Lemaire) is a small, spineless, grayish-green[1], carrot-shaped cactus growing in the Rio Grande Valley and southward. It contains nine narcotic alkaloids of the isoquinoline series, some of them strychnine-like in physiological action, the rest morphine-like."[2] Peyote is unique as a drug. La Barre states, "First, exhilaration is produced by the strychnine—nausea and wakefulness and finally, under the influence of the morphine-like alkaloids, brilliant visions are produced, which last several hours."[3] In Peyote, the use of this drug is comparable to the dogma of Our Lord's Supper in that both rituals are ways to God.

Many men have tried to discover what peyotism is by asking members of the cult. They all received similar answers. "If you want to know about Peyote, eat some and Peyote will reveal all." Many of these inquiries have been motivated just by curiosity. Peyotists are very orthodox and want no part of frivilous adventure seekers. The minor sickness that results from eating peyote is blamed on an impure heart trying to learn of peyote without the proper frame of mind; that is, a sincere desire to try to reach God through peyote.

The Peyote ritual is a strange blend of Pagan and Christian ceremonies consisting of three main elements: "(1) The thera-

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1 R. E. Schultes, **Literary Digest,** November 13, 1937.
2 Weston La Barre, **The Peyote Cult,** (New Haven, Conn., Yale University Press, 1938) p. 7.
3 Ibid.

peutic use of peyote as originated in Mexico, (2) the addition of the Plains Indian Ritual, and (3) the introduction of Christian concepts.."[4] The old Mexican contributions include the eating of peyote in the ceremonies and the use of an earth altar, sacred music, Indian music, and ritualistic implements."[5] The Christian contribution includes "brotherly love, acceptance of what is good in both cultures,"[6] "baptism and the confessional."[7]

The Peyote cult had its origin in pre-literate Mexico. De Alarcon reported it as early as 1629[7a] among the Hikuli worshippers of the Huichol and Tarahumare tribes of the Sierra Madre mountains of Lumbholtz in the late nineteenth century with these tribes, and his report of their religious customs is practically identical with accounts of present Peyotism "which does not date back more than half a century."[8] They ate Hikuli and received the same illusions and reactions as the peyote button gives the present users of the narcotic. The traits that are reflected in these modern religious ceremonies have been practiced for centuries. True, there have some changes—time would never allow stagnation—but essentially it is the same form of worship as was found by the Spaniards. Here the records begin, but the use of Hikuli undoubtedly goes much farther back in the history of these tribes. No pin-point identification can be made. Here we must resort to folklore.

Some of these folklores have been recorded by Petrullo. I would like to present one of these versions.

"A long time ago there was a great war. At one time one tribe lost a battle and many of its people were killed. One man, finding himself alone and despairing of saving himself, decided to await death where he was.

" 'All my people have been killed,' he said to himself, 'Our enemies are going to kill me also. I will give myself up.'

4 Milwaukee Museum display card.
5 Ibid. (See Plates Nos. 1-4)
6 Schultes.
7 La Barre, p. 175.
7a Ibid
8 **Literary Digest,** Volume 68, p. 34.

"He lay down on his stomach and hid his face in his hands. He waited. Soon he heard a person approaching from the east.

" 'Surely,' said he to himself, 'this is one of my enemies.'

"He heard him coming, and waited, expecting to be killed. He heard the person come right up to his head. He was sure that now he would be killed. He waited, but instead he heard the man, who was Peyote, say:

" 'I have come here, not to kill you, but to bring you a good message. You know that many of your people have been killed and that the rest are scattered in all directions. I have come here to tell you what to do. I have come to take away all your trouble. Those of your people who have survived the battle are safe. Your own children are safe. Now, I want to teach you something you will transmit to your people. Do as I tell you and no trouble will come to you from anywhere. Your people will not be killed any more. This is what I look like. You will find me around here.'

"The man opened his eyes, looked around but saw no one. He felt the Peyote plant in his hand. Then Peyote spoke again and taught him what to do. Peyote gave his power to the man. The man went back to his people and told them that Peyote had come to him. He told his people not to worry, that everything would be all right. There would be no more trouble. Everything would be good. But Peyote had said:

" 'There are several different ways you can use me, but unless you use me in only one way, the right way, I may harm you. Use me the right way and I will help you.'

"Peyote told this Indian how to use him in the right way.[9]

The other versions are almost the same, the similarity being Peyote coming to the Indian in time of need and trouble.

Peyote did come to the Indian in time of need and trouble. In the past years of this continent's written history up to the last of the nineteenth century, the Indian was king of these lands. Tribes ruled vast ranges of territory and their prestige and personal pride was tremendous. Because of inferior arms and cultures they were pushed farther and farther back. Out

[9] Petrullo, **The Diabolic Root**, pps. 37-38, narrated by Joe Washington.

of their hunting lands they were headed westward, and finally were placed upon reservations, a sterling tribute to the white Man's generosity.

What had once been a nomadic, free individual now felt boundaries, narrow ones, to, and the life had to be modified. White men brought industry, and Indians, who once lived to no schedule except their whims, were now punching time clocks. Tribal life was starting to disintegrate and the culture was failing.

Peyote offered an escape, and as such, its use in the cult was well suited to the changing lives of the Indians.[10] Through the visions of intoxication they must have felt some of this grandeur return and be manifest in hallucinations. This gave the Indian another chance at communal meetings. As an escape it more than served its purpose, but it also gave him a religion of the modern times and one which could be applied to their mode of life.

Christianity was then introduced. Bible symbols, and even excerpts, were employed in their new faith. A common symbol was the cross of Christ over the world.[11] This church in Oklahoma is known as the Native American Church[12] and is incorporated under state statutes. The membership as of 1922 was 135,000[13] in that state. In the Winnebago and Menominee tribes it is known as the Church of the American Indian,[14] but it is not a chartered sect in Wisconsin.[15] Here was offered a compromise which helped to acculturate the Indians to their modern, "civilized" life.

As was mentioned before, peyote possesses recognized therapeutic values. There are cases on record where peyote has cured consumtion and other organic diseases.

Curative meetings are part of the ritualistic "Sabbaths." Special meetings are called for the curing of sick persons, although on a festival day, when a meeting is conducted they

10 Schultes.
11 See Plate No. 2.
12 Shultes.
13 Ibid.
14 Museum display label.
15 F. R. Zimmerman by Roberts.

always take time out to pray for the ill and to administer unto them. Because of its strychnine-like alkaloids, peyote offers slight nausea and oft times vomiting. Some people confuse these medicinal and therapeutic qualities with the nausea of eating peyote. In the January 1, 1921 issue of the **Literary Digest**, statements were made in an article, but the article possessed no credit line. The person who wrote these statements was certainly wise by not placing his name on them for they show complete lack of understanding and knowledge of peyote, and his statements were not based on facts. A reference was made to the effects of peyote after the ceremony was completed and many of the mescal "buttons" have been eaten. The anonymous author says, "sleep follows and the participants are in a stupor most or all the next day in proportion to the amount of the stuff (peyote) that they have taken and the resistance their systems offer to the effects. In extreme cases, two days or even weeks go by before the victims entirely recover their normal conditions of body and mind."[16]

I would now like to quote an authority on this subject, a man who has spent much time studying peyote and has written many article on peyote. "Intoxication from peyote is singular in that consciousness is never lost, control of the limbs is maintained, a feeling of well-being is experienced, no urge to commit violence is induced and rarely are there uncomfortable after-effects."[17]

Discussing these reports with Eldon Wolff, the differentiation between the prejudiced approach and the scientific approach was aptly explained by him in his comments about the anonymous article. "This report has the flavor of the prejudiced missionary who is unsympathetic. It is reminiscent of similar reports by the well meaning but sadly misguided missionaries to the South Seas who, in the middle of the last century, wrote horrible reports on the use of **Kava**, which reports have subsequently been proven utterly groundless. **Kava** has no effect on the average user of tobacco. The only effect peyote has, aside from the form of hilarity, or mild

16 **Literary Digest.**
17 Schultes.

hallucinations, appears to be a progressive tendency toward impairment of the optic nerve. Confirmed users of peyote generally are obliged to wear colored glasses."[18]

The Peyote cult, in its present diffused state, is only about fifty years old. From its early times, the cult was localized in Northern Mexico.[19] In its course of diffusion it spread northward to the Comanche and Delaware Indians in the last years of the nineteenth century. The system of placing Indians of various tribes on reservation gave the cult a chance for further expansion. The flow of followers spread northward through the plains states and "then to such Wisconsin tribes as the Sioux and Fox, Menominee, and Winnebago, where it is organized as the Church of the American Indian."[20] I would like to point out that this church has never been incorporated under a state charter in Wisconsin.[21]

Its great diffusion can be attributed to the appeal of Peyotism to the Indian. This diffusion in turn is responsible for the many attempts to stamp out its practice. Religious groups have tried, unsuccessfully, to turn public opinion against the cult. Attacks have been made because in some circles Christianity is subordinate to Peyote. This viewpoint is very narrow and intolerant. These prejudiced minds have threatened the American people that permitting the continuance of the Peyote cult may induce some white men to adopt the peyote habit and "debauch"[22] themselves with this dry whiskey.[23] "Despite fierce opposition from missionary groups, the Peyote cult in Oklahoma has been organized into a chartered sect—the Native American Church."[24] These religious groups have tried for years to have anti-peyote laws passed. The Federal government has seen many attempts by pressure groups to discourage and abolish the use of peyote in any form, ritualistic or otherwise.[25] There have been states that

18 Eldon Wolff, Curator History, Milwaukee Public Museum.
19 Museum display label.
20 Ibid.
21 Zimmerman, Fred R.
22 Literary Digest, January 1, 1921, p.34.
23 Ibid.
24 Schultes.
25 La Barre, p. 29.

have tried legislation, but abolished this legislation and now allow the cult to function with its use of the drug. In Wisconsin no legislation for prohibiting peyote had been attempted before 1947.[26]

Upon inquiry to the Library of Congress, I obtained the information that, since 1930 there has been only one bill to hamper the use of peyote. This bill was entitled "To impose an occupational tax upon certain dealers in peyote . . . etc."[27] This bill was referred to the Ways and Means Committee but it was never reported to have left the committee.

The decrease in attempts on anti-peyote legislation can be attributed to a very sympathetic Indian commission under the present administration.

I have spent much time in the discussion of peyote, the history, and attempts to abolish its use, and now I would like to show just how peyote is used in meetings.

A typical meeting usually last about sixteen hours. It begins at eight in the evening. Before the meeting can be started, the person who is sponsoring the ceremony provides for a road chief, who is leader of the meeting, and his assistants. He also purchases and supplies the implements. One of the assistants, the fire chief, purifies the members as they enter the tent, while the road chief directs them to their places as they walk clockwise around the tent. When everyone is in his place, road chief offers the first prayer of the evening to Peyote. After the first prayer he sings four songs, accompanied by the drum chief on his right. When he is finished he passes the gourd, rattle, and staff to the person on his left.[28] That person follows the same procedure. This ceremony is continued round and round the tent, each man passing the implements to the man on his left and that man singing four songs or offering a prayer. During this early ceremony, the mescal "button" is passed to each member, who eats it. This method of eating is entirely symbolic and follows a ritualistic pattern. It is taken into the mouth and chewed until there is enough saliva

26 Zimmerman, Fred R.
27 Parson, H. S.
28 See Plates I-V.

about it. It is then placed in the palm of the hand and the other hand rolls the wad about clockwise until it is in the form of a ball. It is swallowed whole.

Four times before midnight this same procedure is followed, and during the interim there is constant singing and praying. At midnight the road chief halts the meeting and offers the midnight water-call prayer. After the prayer a woman brings in water for the guests to refresh themselves(women are considered pure among the Indians and only a pure person can bring in the water), and if anyone so desires he may leave the tent for relief. The meeting again commences and here any man who has brought his own peyote may start eating his own peyote, but he cannot eat his own until the four "buttons" have been passed around. The intoxication usually begins at this time and the tempo of the ceremony is increased, but extreme exhilaration is one of the effects of peyote intoxication. The tempo of the meeting is constantly increased until about six in the morning when the meeting is stopped for morning water-call, and again a woman brings in water for refreshment. After approximately two more hours of ceremony they disband to another place for sacred food; that is, food that has been purified by these women.

If, at any time during the meeting, a person wishes curative prayers to be said for himself or any member of his family, the person is brought in and a special prayer is offered up to Peyote in behalf of this man.

When women are in attendance, peyote is take in the form of a mild tea and the men also make a pipe of peyote. The eating, smoking, or drinking of peyote is continued until after the sacred food has been served and the meeting disbands. The ritualistic importance of this is the fact that no member will eat peyote unless in such a meeting. Peyote is not intended as an intoxicant, nor taken as such. It is a means of worship and that must be understood.[29]

Peyote, as a problem today, is pertinent because of the rising population of the Indians. They are constantly becoming a stronger and stronger minority. They present a problem that

[29] Petrullo, P. 48.

must be solved before true harmony can again exist in our intercourse with them.

I have tried to show the values of peyote to the Indians. I have also tried to show the opposition against this cult. That opposition oft times is padded with prejudice, sometimes jealousy, most of all misunderstanding.

From the bloody days of the inquisition to the present, the Indian has had a difficult time practicing his religion. Theoretically, in this land there is freedom of religion, but we certainly haven't granted this freedom to the original settlers of this land, the Indians. They have certainly made an attempt to reconcile their ways with ours in the adoption of Christian practices and rituals. They have compromised with us and have worked with us to create happier relations between us. We have met every one of the compromises with nothing but intolerance, always willing to receive, but never giving an inch in our stand against them, however wrong it may be.

To most of us peyote is something unknown. Because we don't know it we are unsympathetic and show it by our actions. However, until we do know more and more about this subject, an open mind should be kept to insure a good balance in our relations at all times with the Indians.

The End

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Sept. & Dec. 1948

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TRENDS OF CHANGE IN PATTERNS OF CHILD CARE AND TRAINING AMONG THE WISCONSIN WINNEBAGO

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES

IN CANDIDACY FOR THE DEGREE OF

MASTER OF ARTS

DEPARTMENT OF ANTHROPOLOGY

THE UNIVERSITY OF CHICAGO

BY

NANCY OESTREICH

AUGUST 1947

PREFACE

It must be made clear at the outset that certain limitations of date require the exercise of caution in the drawing of generalizations and conclusions in the following study.

Paul Radin has presented the only extensive ethnological studies of the Winnebago, but he deals scarcely at all with child care and training apart from the ideal picture.

Certain documentary sources such as the Indian Office reports and old settlers' memoirs give some indication of the impact of white influence on Winnebago society and on child care and training in the the society over a period of years.

Practically all data dealing with the Winnebago of today and with child care and training past and present were collected by the writer in the field.

At the suggestion of Dr J. S. Slotkin the writer began field study among the Wisconsin Winnebage during six weeks of the summer of 1944. This introductory study, which was carried on primarily to learn field techniques, was done at Schroeder's Orchards near Egg harbor, Wisconsin. About two hundred Winnebago were temporarily settled at this orchard to participate in the cherry harvest. The group was made up of Winnebago from different parts of Wisconsin. The writer was able to live in the section of the orchard quarters reserved for the Winnebago workers. Here were collected data referring mainly to the present day Winnebago economy and to the Peyote religion. Friendships were made at that time that enabled the writer to carry on correspondence with Winne bagos who live in several Wisconsin communities. The writer was fortunate at the time of the cherry harvest to meet Mr. Mitchell Redcloud who was working at another orchard. Mr. Redcloud was a patient at the Wisconsin General Hospital in Madison during most of the winter of 1944-45 where the writer could continue the study of the Winnebago through interviews with him. It was through the influence of anthropology courses concerned with social control presented by Dr. H. Scudder Mekeel at the University of Wisconsin and through the kindness of Mr. Mitchell Redcloud in the beginning of that writing of his autobiography, that the present study began to take

shape. Mr. Redcloud's home was near Black River Falls, Wisconsin, and his descriptions of the Winnebago community there led to the writer's making a reconnaisance study at the Black River Falls community during the last three weeks of June, 1945, against such time that funds might be available for a full season's study.

With funds provided by the Department of Anthropology of the University of Chicago, the writer was able to carry on field research under the guidance of Dr. Fred Eggan at the Black River Falls community from July 1 to September 15, 1946. Copies of the data collected during this time are on file in the office of the Department of Anthropology of the University of Chicago. The following study of child care and training is based largely on these data. It must therefore be remembered that any final conclusions contained in this study refer specifically to the Black River Falls community. The writer has had no opportunity to study at first hand any other permanent Winnebago communities, so that information from other areas will be discussed only as collateral evidence relating to specific factors which might be applied to Wisconsin Winnebago living elsewhere than at Black River Falls.

Deep gratitude is due the Winnebago Indians of Black River Falls and of certain other Wisconsin communities for their ever sympathetic help in providing information in the field. Particular thanks are due to Mrs. Matilda Monegar, Miss Lorraine Swan, Mrs. Stella Stacy, Mr. John C. Decora, Mr. Alvin Stacy, Mr. James Smoke and the late Mr. Mitchell Redcloud.

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CHAPTER I

INTRODUCTION TO THE PROBLEM

We wish to discern to what extent and in what manner changes in child care and training among the Wisconsin Winnebago have kept pace with changes in the society as a whole during the past decades.

That the individual is prepared for adult life through care and training received in childhood is hardly subject to doubt Furthermore, we know that Winnebago adult society has undergone marked and rapid change since the time of first white contact to the present day. Therefore, the study of changing patterns as they effect the growing individual implies a consideration of the appropriateness of given types of training for given types of society. Moreover, we must be content to present merely the historical changes and to describe their sources and forms. Data of a psychological nature relating to individual adjustments or maladjustments to the social situation, or even discussion of psychological norms, are beyond the scope of this study for several reasons. First, the present writer is not adequately prepared to deal with the psychological implications of ethnological data. Second, as we go further back in history for information we are dealing increasingly with the ideal form and less and less with those human variations and adjustments inevitably made on ideal patterns.

Therefore, even when we can note by simple observation the extent to which the young individual is being emotionally and practically prepared for the changes which have occurred within the society in terms of the experience of living informants, we have no comparable data referring to earlier periods.

Hence, the crux of our problem remains historical in nature. We wish to determine whether the factors producing change in the adult society had sufficient impact to affect simultaneously those patterns surrounding the care and training of individuals who were but potential members of the adult society.

We are aware at the outset that a certain lag in child care and training is to be expected, since the adult who was rearing children could not always recognize and anticipate gradual changes occuring within his life-time. However, our problem will concern the extent of such lag, whether or not it followed at an even distance behind changes in society as a whole, and whether all aspects of child care and training were equally opposed or prone to change as the society changed.

The problem will be discussed in terms of a temporal continuum with the first white contacts deliniating one end of the time span and the year 1946 the other The group considered becomes progressively limited in size as we approach study of the present-day situation. We will begin with the tribe as a whole which shared a common culture; later, we must narrow our group to include only the portion of the tribe which took up final permanent homes in Wisconsin, and finally we shall consider the end result of social change in one community of Wisconsin Winnebago.

For clarity in understanding, we shall describe first what we knew generally of the Winnebago at the time of white contact; second the course of such intrusive and disruptive forces as have brought social changes; and third, Wisconsin Winnebago life as it stands today, particularly in the community seven miles northeast of Black River Falls.[1] Against this historical and descriptive background we shall then project the picture of changing child care and training, so that it will be seen in the setting of the whole changing society.

1 The town of Black River Falls lies sixty miles due east of the Mississippi River and about one hundred and twenty-five miles due north of the southern boundary of the state of Wisconsin.

CHAPTER II

HISTORICAL PERSPECTIVE

The Winnebago, when first met by the whites,[2] were an extensive, semi-sedentary tribe whose small bands were scattered from Lake Winnebago in Wisconsin, west to the Mississippi River, and south along the Rock River in Illinois. Their legendary place of origin was at Red Banks near the present city of Green Bay. The Winnebago were known as a powerful, warlike and rather troublesome tribe which had over-reached itself and was held in suspicion by its neighbor tribe and erstwhile ally, the Menominee.[3]

The Winnebago who speak a Siouan language were surrounded by tribes speaking the Algonquin tongue. The Winnebago, however, shared much of their neighbors' woodland type of culture.

Their band villages were headed by recognized chiefs, and bonds of kinship, language, customs and friendship gave the bands a sense of belonging to one tribe. They had no confederacy with a head chief, and while councils of band representatives might meet for the purpose of discussing such things as war, they held no large annual tribal gatherings such as those occasioned by seasonal hunts on the plains.

The tribe was organized into a moiety dichotemy in which one of four clans (the upper or sky division) and the other eight (the lower or earth division). These were respectively the Thunderbird, Eagle, Hawk (or Warrier), and Pigeon clans and the Watersprite, Elk, Deer, Bear, Buffalo, Snake, Turtle, and Fish clans. The moiety was exogamous and the larger size of the four upper clans offset the disparity in the actual number of clans in the two parts of the moiety.[4]

2 **Jesuit Relations and Allied Documents,** Vol. XXIII. pp. 277-279. According to this source, Nicolet was the first white man to meet the Winnebago. The exact date of Nicolet's visit with the tribe is uncertain, but it appears to have been around the year 1634.

3 Paul Radin. "The Winnebago Tribe," **BAE** Annual Report, Vol. XXXVII (1916-17), p. 54.

4 **Ibid.,** p. 207.

All or a majority of the clans were represented in each village, and a council of clan elders, of which little is now known, acted as advisors to the chief.[5]

The village chief held office by virtue of his ability as a generous, peaceful and fair minded person. However, there was also the factor of hereditary eligibility for the position in that chiefs were chosen from the Thunderbird clan.[6]

Certain clans had specific duties. The Bear clan acted as local police; the men saw to the punishment of crimes such as the breaking of hunting rules, misrepresentation of deeds in warfare, etc. The later years when liquor became a problem, the Bear clan members sometimes punished drunks for creating a disturbance in the village. The Bear clan meted out such punishments as the destruction of a culprit's goods; they might in extreme cases whip or banish him from the village.[7]

In cases of murder, the culprit could seek refuge in the chief's lodge. The chief tried to prevent blood feud by offering his pipe to the family of the deceased. If they smoked it, it indicated that the murderer could go free. The chief might attempt to arrange for the murderer to make some restitution in goods that would be acceptable to the family of the deceased.[8]

The buffalo clan supplied town criers to make known any news which the chief wished to have broadcast to the village. According to some individuals, this was a privilege granted to anyone who had counted **coup** four times.[9]

The Hawk (or Warrier) clan decided upon the course to take in treatment of prisoners, and these clan members were also authorized to lead war parties. Those who led war parties

5 **Ibid.**, pp. 163-165.

6 **Ibid.**, p. 207, 209.

7 **Ibid.**, pp. 226-227.

8 **Ibid.**, pp. 209-210.

9 **Ibid.**, p. 243.

by right of spirit directive obtained in the vision quest were subject to the approval of the chief and clan elders. The chief could stop a war party by placing his pipe across its path. Any leader who then persisted in leading his party was held responsible for any deaths occuring among his followers while on the war path.[10]

Other clans had minor socio-political functions. Each clan had its own origin myth, particular ceremonies, names for individuals and one or several war-bundles. Specific clans were opponents in la crosse games, and each clan group had its own seating place in large ceremonies. There may have been a traditional arrangement of clan lodges in each village, but the data are conflicting on this subject[11]. It is also not known whether large, extended family lodges with several fire places were traditional or whether small individual family dwellings were the most common. Both types are mentioned in folklore, but in the last fifty to seventy years, people have shown a preference for the smaller lodges. The dwellings were of the familiar wigwam type made of arched sapling frames covered with bark or read mats.[12]

The bands were primarily sedentary, but traveled at times in search of game; the hunting of large animals such as deer, bear and buffalo often was done by large parties including women. When the bands moved they allowed the frame works of the lodges to stand to be reused from year to year. At the summer villages the women planted gardens of corn, beans and squash. Women also gathered wild plant foods and they performed all of the household duties. A coordinate division of labor existed between men and women, since the men provided game which the women used to make into food, clothing and other useful articles.

Winnebago religion included a belief in a rather vague and

10 **Ibid.**, pp. 218-219.

11 **Ibid.**, pp. 188-189.

12 **Ibid.**, pp. 104-105. Long, communal lodges of a gable style were also used.

unapproachable creator diety, usually called Earthmaker. However, religious practices centered more about lesser or intermediary dieties which could be bargained with or coerced by man. Among these were the Thunderbirds, Waterspirits, Disease-giver, and various spirit animals. Most geographic and natural objects were thought to have spirits to which one might offer tobacco or other gifts for blessings. Guardian spirits were acquired through the vision quest, and these and other spirits prayed to according to Radin, were held in no particular esteem or love, but were relied upon in time of need or danger.[13]

Religious ceremonies consisted of various seasonal feasts, war-bundle feasts, ceremonies attending warfare and hunting, and rites of secret religious societies. In later years the medicine lodge became the most important of these secret societies.[14] The societies offered their members the general goals of the Winnebago: happiness, long life and reincarnation. Religious stories center about cycles of the creation of the world and man, and about culture heroes sent by Earthmaker to aid man and protect him from wicked spirits.[15]

The land of souls of the dead was conceived of as being much like the Winnebago villages on earth, but had to be reached by a dangerous and circuitous route. The soul lingered on earth four days after death and at this time the living directed it on its way, gave feasts to which the soul was invited and entertained it by stories told during the night. A warrier recounted his deeds and directed the spirits of enemies he had killed to act as slaves to the one for whom the wake was being held. A person might be reincarnated as an infant and lead another life on earth, or he might live for a time in the abode of his guardian animal spirit. Everyone at least expected to go to a pleasant village and live there after death.

13 **Ibid.**, p. 279.

14 Paul Radin, **The Road of Life and Death** (New York: Pantheon Books, Inc., 1945). This gives a complete description of the medicine lodge.

15 **Ibid.** and Radin **BAE** Religion, Chapter XI, pp. 277-316.

Religion was not a casual matter reserved for special occasions but entered into all aspects of the individual's life in the form of positive and negative social sanctions. Spirits of various sorts were contained in much of the material environment surrounding the individual.

Little is actually known of the period prior to the advent of the white, and while we may discuss detailed descriptions of institutions and material culture, a society and way of life long dead cannot be reconstructed as a functioning whole. We can only present a static picture, general or specific, but there are no real people moving about in it. Certainly for a society to exist and develop institutions and intricate techniques of material culture, it required fairly long intervals of peace. Nevertheless, goals, favorite stories, prestige and general cultural orientation were directed along the glories of the warpath. Furthermore, concord must include intra-band peace, yet Winnebago stories and belief abound in references to witchcraft, the learning of medicines and magic to protect oneself from village people who might practice evil craft. Witches were feared, and yet they had power and prestige, and could attain wealth by intimidating their fellows. It is difficult to determine whether the shammans often mentioned but never defined by Radin,[16] were witches or a particular variety of medicine men who might practice good or harmful magic and who knew sleight-of-hand.

These disruptive forces in village life were offset by cultural ideals, apparently put into practicable form, of generosity, hospitality, coordinate obligations and a sense of brotherhood and respect for those of one's own tribal stock.

The earliest whites brought little to influence Winnebago life: a realization of a larger world and different people, hints of a strange religion, knowledge of new tools and techniques.

At first the Winnebago profited by the presence of the whites.[17] They traded furs for material wealth that in time

16 Paul Radin, **BAE**, pp. 254-276.

17 Perhaps much that we consider "traditional" actually relates to the time that the fur trade was in its ascendancy. Many "old stories" refer to white-made trade goods which had become necessities to the tribe.

became necessities—guns, metal vessels, textiles, and finery of beads and ribbons and bells.

For the tribe, hunting took on a new economic importance. It could be carried on with greater ease by use of guns and metal traps. Traders gave goods on credit against the Indians' fall and winter hunting, but even the traders who possessed wealth, for which the Indian bartered, had to learn from the Indian how to maintain life in the the wilderness. A new social class began to form. The French married readily among the Winnebago and other tribes and their half Indian off-spring might remain with the tribe or act in a liaison capacity between the two races. They became interpreters and some became traders.[18]

At this period there occured the famous marriage of the alleged French nobleman de Kaury and Glory-of-the Morning, the daughter of a Winnebago chief. The wife and two sons remained with the tribe but de Kaury and a daughter returned to Canada. Because of this kin alliance the French became political allies of the Winnebago against their enemy, the Sauk. The name is now spelled Decora (Dekorah) and practically all the Winnebago can tract their ancestry back to some remote Decora ancestor.

The British traders followed the French, and the Americans followed the British. These white nations vied for favor in the fur trade with the Winnebago.[19]

By the beginning of the nineteenth century, the Winnebago began to see their land encroached upon. Settlements of a fairly permanent nature had sprung up around what had been simple forts and trading places.

The Winnebago avoided open hostilities with the whites until the 1820's and even then engaged only in small skirmishes

18 Names such as St. Cyr, Pauquette, and La Mere are still found among the Winnebago and stem from French fur-trader ancestors.

19 Hon. James Doty, "Northern Wisconsin in 1820," **Wisconsin Historical Collections**, VII (1865), pp. 205-206.

which have been dignified by the name of the "Winnebago Uprising."[20]

The fur trade began to fall off and early settlers told of liquor becoming a problem among the tribesmen. By 1820 there were ever-recurring hints of impending crisis. In 1822 the Winnebago and Menominee agreed to sell a small trace of their territory to the New York Indians, Oneida and Stockbridge, who traveled west seeking a haven.[21] An agent was stationed at Portage, Wisconsin, to handle the affairs of the Winnebago and to see to the payment of their annuities accruing from the sale of land.[22]

In 1825 and 1827 the Winnebago signed treaties with the government and Sioux, Sacs and Foxes, Chippewa and Ottowas, and Chippewas and Potowatomies of Illinois to establish the accepted boundaries of the respective tribal territories.[23]

In 1826 the Winnebago got news of impending warfare between the Americans and British and took council upon their own plan of action if war should ensue. They neglected their trapping and the traders protested to the government to force the Indians to pay for the goods that had been given them on credit against that season's hunting.[24]

In 1828, the Winnebago signed a treaty allowing the whites under the authorization of the United States government, to occupy their lands against such time as provision would be made for the purchase of the lands and the removal of the tribes. The Winnebago permitted the government to operate two ferries over the Rock River in their territory.

20 Col. Ebenezer Child, Child's Recollections," **Wisconsin Historical Collections,** Vol. IV (1858), pp. 172-173.

21 Thomas De la Ronde, "Personal Narrative," **Wisconsin Historical Collections,** Vol. VII (1865), pp. 223-225.

22 Child. **op. cit.,** p. 183.

23 **BAE,** Vol. XVIII, part 2. This is the main reference concerning land cessions. See Figure 1 which shows the various reservations occupied by the Winnebago since 1825.

24 Hon. James H. Lockwood, "Early Times and Events in Wisconsin," **Wisconsin Historical Collections,** II (1856), pp. 154-155.

In this same year a small party of Winnebago attacked a keel-boat on the Mississippi River and also killed members of two white families residing near Prairie du Chien. A Winnebago chief and two other Winnebago gave themselves up to the government as the murderers. This was done presumably to forestall large scale retaliation by the whites against the tribe. The prisoners were taken to Green Bay for their trial and were granted presidential pardons. However, Red Bird died in prison before the news of the pardon reached him.[25]

The Winnebago ceded the southeastern portion of their territory in 1829, and in 1832 ceded another portion. They were granted hunting and settling rights on a tract of land along the Mississippi in the present state of Iowa. They could dwell either in their remaining Wisconsin territory or on the new land. Those who went to Iowa returned in haste. The Iowa tract was known as the "Neutral Ground" and, while acceptable as hunting ground, lay between the Sac and Sioux who bore enmity toward oneanother. The Winnebago feared they might be embroiled in their neighbors' fights.[26]

The situation was further aggravated when on November 1, 1837, pressure was brought to bear upon a number of chiefs, and the Winnebago ceded all their land east of the Mississippi River.[27] Within eight months of the above date the tribe was to be removed to the Neutral Ground until such time that a permanent reservation would be found for them. The Winnebago were loathe to leave their Wisconsin homes and they furthermore still feared the Sac and Sioux. Many remained in hiding in their old territory.[28]

25 Child, **op. cit.**, p. 173.

26 For a thoroughgoing discussion of the removals of the Winnebago the reader may refer to Louise Phelps Kellog, "The Removal of the Winnebago," **Transactions of the Wisconsin Academy of Sciences, Arts and Letters**, Vol. XXI, 1944, Madison, Wisconsin.

27 De la Ronde, **op. cit.**, pp. 393-394. This was known as The Fraudulent Treaty because a delegation sent to Washington was supposedly tricked into signing it.

28 **Ibid.**, p. 359.

Figure 1—Winnebago Land Reserves and Removals, 1825-1888

1, 2, 3 - Winnebago lands as agreed upon in treaties of Aug. 19, 1825 & Oct. 16, 1826. Treaty Aug. 25, 1828 permitted to occupy land and operate 2 ferries over Rock River

1. Ceded Aug. 1, 1829.
2. Ceded Sept. 15, 1832.
3. Ceded Nov. 1, 1837 - for 4 - "Neutral Ground".
4. Ceded Oct. 13, 1846 for 5.
5. Ceded Feb. 27, 1855 for 6 & 7.
6. Ceded April 5, 1859 for sale to benefit Winnebago.
7. Ceded Feb. 21, 1863 for sale to benefit Winnebago, pending removal to 8.
8. Ceded March 8, 1865 for tract on Omaha reservation (9 & 10).
10. Ceded portion for sale - July 4, 1888.

In 1840, troops were called out to gather up the Winnebago and escort them to their Iowa land. Thomas de la Ronde who witnessed the action of the troops at one village described a dismal scene. Old women begged to be killed rather than taken from their homes, and Indians fell to their knees kissing the ground in which their relatives were buried. A certain amount of leniency was shown toward the old people, but as much of the tribe as the troops could round up was hustled across the Mississippi. Many people managed to sneak back to Wisconsin and several bands lived in hiding in the northernmost part of their former Wisconsin territory.[29]

The Neutral Ground was ceded on October 13, 1846, in exchange for a tract of land of not less than 800,000 acres north of the St. Peer's River and west of the Mississippi River in what is now the state of Minnesota. Here for a time the tribe was satisfied since they had sufficient land and it was in country similar to that of Wisconsin. However, in 1855 they were forced to relinquish this reservation for a tract of land covering eighteen square miles in the southern part of Minnesota. Here two large farms, Blue Earth and Le Seur, were established for the Indians on which they were taught agricultural pursuits by white farmers hired by the government.

A school, a sawmill and a blacksmith shop were built, and according to the agent's reports of the next few years, the Winnebago were making noteworthy progress on the road to self-support as farmers. School attendance was not very regular, but two hundred pupils were accounted for. There were plans to allot individual farm lands to the Indians, and in time, some of them were given land of their own with the understanding that deeds to the land would be forthcoming.[30]

In 1855 another attempt was made by the government to gather up the Winnebago still residing in Wisconsin. A Winnebago chief, known as Old Dandy, was the leader of the disaffected bands which refused to live anywhere but in Wisconsin.[31]

29 Ibid., pp. 364-365.

30 Indian Affairs, Annual Report of the Commissioner, 1855-1858, Passim.

31 De la Ronde, op. cit.

The eastern half of the Minnesota reservation was ceded for sale to whites; the proceeds were to be used for the Indians' benefit in helping them to become established as farmers. A growing suspicion on the part of the Indians and the government's disinterest in prompt payment of annuities led to the gradual decline of the Blue Earth and Le Seur farms. The sawmill was destroyed by floods and the cut logs and other articles surrounding the mill were spirited away by the Indians. Those half-breeds and Indians who had been allowed to farm independently refused to work their land or make any improvement upon it until they were given deeds proving their legal ownership of the land.[32] Such deeds were never granted.

The Sioux uprising of 1862 in Minnesota caused the settlers to bring pressure to bear on the government to have all Indians, no mattter what their tribe, removed from Minnesota. The whites attempted to prove that the Winnebago were in sympathy with the Sioux and had taken part in the fighting. The agent felt that if any Winnebago had joined the Sioux, it was but an exceedingly small group and the Winnebago were as a whole very loyal to the government. The settlers' wishes prevailed, and on July 1, 1863, the Winnebago were forced to cede for sale all of their Minnesota land and agree to be removed beyond the boundaries of the state. They were given a tract of land adjoining the Crow Creek Reserve of the Sioux in South Dakota, but the Winnebago were not removed until cold weather had set in. Sufficient provisions were not available to feed or shelter them, and they were driven across the plains to their new land to shift as best they could. Many perished of hunger and exposure along the way, and many died that winter on their new reservation.[33]

Some fled back to Wisconsin to join old Dandy's group. The white people in Wisconsin meanwhile sent a petition to their governor to have the roving bands of Winnebago removed. The whites were frightened by the stories of the

32 Indian Affairs, **op. cit.**, 1861, **passim.**

33 The memory of these hardships is still recounted in the family histories of present day informants.

recent Sioux uprising in their neighboring state of Minnesota, and the governor of Wisconsin exchanged many letters with the Indian Office concerning the Winnebago. He said that they were pillaging, begging, stealing and being a general nuisance. A white woman was killed in 1863 by some Winnebagos. This heightened the settlers' fears, since the deceased's husband took such bloody measures of retaliation that the Winnebago hinted at revenge in turn. The Indian Office, having spent money and time in fruitless efforts to keep the Winnebago out of Wisconsin, was inclined to look upon the followers of old Dandy as "Old Settlers," who were henceforth to be considered different from the Winnebago Indians in the west.[34]

It was learned through Menominee spies that the Confederate government had sent envoys among the Wisconsin Indians to enlist soldiers. Supposedly Dandy was in favor of the Winnebago throwing in their lot with the South and allegedly held a council to which other tribe members were invited.[35] Although a few may have been won over to Dandy's point of view, actual records tell of no large scale Winnebago enlistment in the Confederate Army. Fragmentary family histories indicate that some Winnebago did take part in the Civil War, but on the Union side.

The Winnebago, who were at that time located in South Dakota, lived in terror of their Sioux neighbors. They begged to be returned to their home "in the garden of Minnesota." There they had devloped an interest in farming, and an appreciation of white schooling for their children. In South Dakota there was no school. No agricultural implements were available for farming. Furthermore, the land was not well suited for agriculture. Their annuity money, derived from the sale of their Minnesota land, fell mostly into the hands of liquor dealers. The Winnebago were discouraged, despondent, undernourished and generally in such poor health that they were unable to provide sufficient shelter and food for themselves. They felt they had been particularly ill-treated since, except

34 Indian Affairs, **op. cit.**, 1863, **passim.**

35 Indian Affairs, **op. cit.**, 1865, passim.

for one or two isolated cases, they had as a group shown a remarkable loyalty to the government and had never really engaged in open warfare with the whites.[36]

Many Winnebago fled the South Dakota reservation to join the Omaha on their reservation in eastern Nebraska. The Omaha were sympathetic toward the newcomers, and spoke a Siouan dialect very similar to that of the Winnebago.

The agent in Nebraska was being entreated constantly for help by destitute Winnebago. He suggested that the Indian Office arrange for the purchase of a portion of the large Omaha reservation to provide a place for the Winnebago to live. The Omaha were willing to sell a part of their land. In 1865 a tract was bought from the Omaha, and the Winnebago were removed to their last reservation.[37]

Meanwhile, a large number of Winnebago lingered in Wisconsin, and more came to join them. In 1874, soldiers were again called out to remove the Winnebago from Wisconsin. This same year the Nebraska reservation was somewhat enlarged by the purchase of more Omaha land. It was then that the sustaining ration system was introduced, but the Winnebago compained that the ration was too small to maintain life. Furthermore, the water was not good and many of the tribe became sick.[38]

The Winnebagos still longed for Wisconsin and despite the chance of troops again seeking them out, they began to return to their old haunts About thirteen hundred Winnebagos finally scattered over nine counties: Jackson, Clark, Monroe, Adams, Wood Juneau, La Crosse, Trempeleau and Shawano. A few old people still recall this last return. They walked most of the distance and rode on trains when they could earn a little money along the way. They did not know how they would live in Wisconsin, but were determined to return there.

36 Indian Affairs, op. cit., 1863, passim.

37 Indian Affairs, op. cit., 1865, passim.

38 The hardships of this removal linger in the memories of old people today.

In 1875 the government finally gave up trying to force the Winnebago out of Wisconsin. Those still in Nebraska were dealt with separately and those in Wisconsin were allowed to remani, if they would take up homesteads, cultivate the land and become settled. The largest single group was located near Black River Falls, and at a site seven miles northeast of that town, the Reformed Church (now known as Evangelical and Reformed Church) opened a mission and day school in. 1878. The Reverend Jacob Stucki who took charge of the mission in 1884 wrote an account of the Winnebago at the turn of the century, wherein he discussed, among other things, the Indians' homesteads. The article was written in German and the following is a free translation of a portion of it.[39]

> The good homesteads in these tracts were already being cultivated by the whites. The Indians, glad to be permitted a moment's stay willingly accepted anything; and so most of them established themselves on forty acre homesteads. These were, for the most part, useless objects for agricultural purposes. The land was mostly weedy, sand country, which could sustain no planting and lacked moisture. After the Indians had taken their homesteads the government concerned itself little, if at all, with their welfare. The Indians endeavored to take up agriculture but they lacked the knowledge and experience as well as the work tools. They were so poor and inexperienced that a great poverty was created. They had nothing to harvest of that which they had planted. There soon vanished all spirit and enthusiasm for agriculture. They fell back more and more on their old occupations of hunting and berry picking.
>
> The woods did not long stand unsacrificed to the lumbering industry. They are no longer so wild, so that in winter, the Winnebago can barely eke out a period of existence by hunting. In the high-lying lands berries grow in abundance. These the Indians can pick and sell at a good price in the fore-summer. In the neighboring marshlands, cranberries grow in profusion which they can also pick and sell from the autumn until winter and even until the new year when the snow melts.
>
> The woods are being depleted rapidly by the white man. Even the little timber which the Indians have on their homesteads is procured and often stolen. The Indians are glad to sell what they can, and in this sad incident the future holds little for the Winnebago through the help of his white brother.
>
> The wild life vanishes as the woods vanish. The cranberry bogs were barren through the poor years of 1887 to 1894. Vast wood and swamp burnings at that time ruined the country and robbed the woods of their strength which also brought

39 Rev. Jacob Stucki, **Einiges Uber die Winnebago Indianer** (Cleveland: Central Publishing House, 1900).

> a scarcity of the blueberry crop. Now few Indians have enough wood on their lands to heat their huts or wigwams in the winter time.
>
> There is constant distress despite prayer and work; and so caught, now this way—now that way, the Winnebago sees the whites who have good land, fields under cultivation, woodlots, and fine, profitable farms. In times when the Indians cannot work they live in debt and on credit until the government pays their yearly allotment money. The government owes them a sum on which interest is paid, coming to about twenty dollars per person.[40]
>
> The as yet robust and unemployed Indian is in this way forced to live out a sorrowful life; however the enfeebled, old, crippled and blind represent a truly doleful picture, living often in the bitterest need. As long as the Winnebago are forced to live on this miserable land their need grows greater, and they founder in more sin and depravity.

The Indians' land was granted under terms that it would be tax free and unalienable for twenty years. For several years after 1895, the provisions were renewed year by year. In the early nineteen hundreds the lands were placed on the county tax rolls, and through the maneuvers of land agents, a colony of Bohemians settled upon the land. However, a few Indians were able to keep their homesteads, and some even bought better farmland when they were able to do so.[41]

During this same period, near the turn of the century, the peyote religion was introduced in Wisconsin. It had acquired a small, but ever increasing following in Nebraska, and the western Winnebago brought the religion to Wisconsin. The Indians of Black River Falls and surrounding areas opposed the religion and "brother turned against brother." Even today it has but few followers in this religiously conservative part of the state, although the intense prejudice against it has died out. In the eastern part of the state, particularly at Wittenberg, peyote gained many converts. Here the Lutheran church had established a mission and boarding school at about the

40 Many Winnebago insist that the government owes them a large sum of money dating back to the treaty of 1832, and a small group has spent much time attempting to trace down and prove these claims.

41 As early as 1850 a member of the Yellow Thunder family took up a forty acre homestead at Dell Creek and managed to escape removal. Henry Merril, "Pioneer Life in Wisconsin," **Wisconsin Historical Collections,** VII (1865), p. 393.

same time the Black River Falls mission had its inception. The boarding school tended to place children more directly under Christian influence than did the day schools in the western part of the state. Peyote, as a quasi-Christian sect, built upon the foundation begun by the Christian boarding school.[42]

The mission day school and white rural schools attended in the Black River Falls region allowed the children to live with their parents throughout the year. Thus they learned the customs and beliefs of their tribe insofar as they could be practiced in the homestead situation. This accounts for the greater religious conservatism of the Indians in western Wisconsin, but two other factors are also responsible for it. The missionaries at Black River Falls were more interested in attending to the secular needs of the people, wisely accepting that spiritual considerations were more easily carried out when people were well fed and in good health. Furthermore, the Black River Falls region had been Old Dandy's stronghold, and his group had been actively opposed to white efforts to influence the Winnebago. The Reverend Jacob Stucki, in his role as a missionary, was often met by the familiar "First you steal our land and then you want to take our religion away from us."

Thus, the Winnebago from 1837 to 1875 were constantly ceding their lands, being removed to different parts of the country, and making new reservation arrangements. Hunger, deprivation, separation of families and a well founded distrust of the government's promises all led to a general feeling of hopelessness and discouragement. Many Winnebago preferred to hide out in Wisconsin rather than follow the dictates of the government. They had little hope of making a living in the barren lands of the west where they could not even obtain agricultural equipment. Those who settled in Nebraska finally benefited by it. Land was allotted to individueals, and as it was fairly good farmland, the many Nebraska Winnebago gradually learned to cultivate their land. However, many Nebraska

42 This information was obtained in conversation with the missionary at Wittenberg and certain peyote followers of that community. Cherry Camp, 1944.

Winnebago leased their land to whites and moved back to Wisconsin to live on their lease money. Wisconsin Winnebago who visited in Nebraska at the time farming was being followed by the Indians there, say that their Nebraska kin looked down upon their poor Wisconsin guests and even ignored them.

During the period of treaty signing, government-provided schooling was haphazard. There were never more than two hundred children of the whole tribe enrolled in school at any one time. Often there were less than that, and some years there were no schools although they were to be provided according to the treaties. In Wisconsin, the Winnebago children whose families were in hiding received no schooling. When their presence in Wisconsin was finally accepted, children who lived near rural schools attended them, but even this was not always possible. The mission day-school at Black River Falls saw the earlier average attendance of thirty shrink to nothing during the period that wood burnings and land sales drove many Winnebago from the area. Due to these circumstances the school closed, and the Reverend Stucki took a few children into his home to educate them at the request of their parents. As more children were brought to him, the need arose for a boarding school and so in 1921, the Evangelical and Reformed Church opened such a school at Neillsville, Wisconsin.[43]

A few of the Black River Falls Indians received several years of primary school education at the boarding school at Wittenberg.

Between twenty-five and thirty years ago, the Winnebago began to enroll more of their children at the vocational boarding school at Tomah. This was a government school for Indian children.

Many customs began to show a particular decline at the period that boarding schools became more popular among the Winnebago. Many other factors also occured at about this time which contributed to rapid acculturation. World War I took many men into the white world and gave them a wider perspective which they carried back to the tribe. On the

43 Arthur V. Casselman, **The Winnebago Finds a Friend** (Philadelphia: Heidelberg Press, 1932), p. 124.

Indians' side of the picture it revived the war-path and ceremonialism concerning it.

The Winnebago began to acquire automobiles which made possible wider travel. Also at this time the tribe came to depend increasingly upon the harvest of white-grown crops as a source of income. This took the Winnebago into white neighborhoods. As the tourist trade increased in the region, the women gain an economic advantage through the sale of their handicraft. Beadwork and basketry were sold through dealers or by the Indians themselves at roadside stands.

In short, contact with Whites entered a new phase. During the period of treaty signing, the Indians met government officials and hostile settlers. Meeting with whites was fraught with distrust and suspicion. In later years the missionaries and a few settlers, particularly the Norwegian groups, were looked upon as friends, or at least as a source of food and clothing. With the advent of the tourist trade and more particularly with the growing importance of crop gathering for white employers, the Winnebago entered upon a period of economic interdependence with white people.

This gave the Winnebagos an opportunity to observe white people as business associates and friends, to learn white goals and customs. These contacts also provided the Indians with the means of purchasing and of coming to depend increasingly upon objects of white material culture.

The older Indians would say that liquor was the source of social change which they look upon as social disintegration, but liquor has been a problem concommittant to the difficulties of acculturation since the first Indian agents deplored the fact that they had not sufficient power to deal with the illicit sale of whiskey to the Indians.

We are now prepared to look at the events immediately preceding and contributing to the picture of the Black River Falls community of today.

CHAPTER III

THE WINNEBAGO TODAY

There are now somewhat more than fifteen hundred Wisconsin Winnebago. Their communities of fifty to several hundred people are scattered in or near towns from the west to the east central portion of the state, roughly from La Crosse to Wittenberg.[44]

Despite the wide distribution of the population, there are two strong cohesive factors which justify considering the Winnebago in Wisconsin as a single group. These factors are language and kinship; a web of friendship and group feeling connects the many communities.[45]

Practically all the Winnebago who identify themselves with the tribe in Wisconsin, speak Winnebago. Many prefer it to English, but most people under sixty or seventy years of age are bi-lingual.

The bond of kinship and friendship is further strengthened by the annual summer migrations to gather various crops. At such time the Winnebago from all parts of the state live together or in neighboring camps for periods of one to several weeks.

This factor no doubt has tended to produce a certain homogeniety of culture.

With certain variations as to emphasis rather than content, the economy of the tribe in Wisconsin may be considered as a whole. Income is usually made in proportion to immediate needs and wants. Needs and wants are limited not only by

44 This is the estimate of the Indian sub-agent at Black River Falls. The actual number is difficult to determine since birth and death records are not always registered promptly with the Indian Office. Furthermore, the Winnebago are given to frequent shifts of residence both in Wisconsin and between Wisconsin and Nebraska.

45 One might also consider race, but only insofar as the Winnebago tend to contrast with surrounding white populations. Actually the group is much mixed in a racial sense due to intermarriage with whites and Indians from other tribes. This has been the case for many years.

the availability of income, but also by the consideration of what is really worth extra labor.

A main source of income is in the gathering of crops, usually for white employers.[46] The crop season begins in June with the strawberry harvest. This is followed in July and August by the cherry harvest in Door County. After this some Indians pick wild blueberries and others pick beans, usually near their winter homes. As we noted earlier, blueberries were once an important crop which the Indians marketed themselves. In recent years, however, the burnt over lands, where blueberries flourished, have become overgrown with underbrush which chokes out the blueberry plants. The bean harvest is beginning to replace blueberries in importance and some Indians now raise "contract beans" and employ other Indians to help harvest the crop. In the fall of the year, cranberries form an an important source of income and Winnebago live near the now white-owned cranberry marshes during most of the autumn. Crop harvesting is considered a regular source of income and pay is on a piecework basis—so much for a pail of cherries or a sack of beans, etc. Whole families take part in these harvests and there is always the chance that a bumper crop will provide extra cash, or that an Indian may work to earn more than his immediate needs in order to buy "school clothes for the children," "a new car," or some other desired item.

Until the recent war, many Winnebago travelled each fall to a tract along the Mississippi to trap for the fur market. The loss of able bodied young men to the armed services, as well as the increasing competition of commercially raised fur-bearing animals, such as mink, have tended to negate the importance of trapping as a source of income.

Most Winnebago take part in one or several of the various crop harvests, but a few find regular employment in factories

46 The summer migrations can be considered a social as well as an economic factor. People gather in the evening to exchange gossip or play cards or Indian dice. Much crop money is spent in the enjoyment of gambling. Sunday baseball games between people on different orchards and farms are a favorite sport of the young people.

or other industries near their communities. For some, this employment is regular only in winter. Young men and women tend to live in towns for part of the year in order to find work, but few become completely estranged from their Winnebago communities.

A small number of Winnebago own and work farms; some others work on white people's farms. We have already made note of the poor farmland in the section where most Winnebago live, but a secondary factor, disinterest in farming, ought not to be overlooked. It was summed up by one infrmant thus: "Those Indians can't ever be good farmers and stay home to plant fields or milk cows. They must rush off to a medicine dance or a feast or a peyote meeting or go to visit their friends in cherry land."

A small group of Winnebago spend their summers taking part in the Wisconsin Dells ceremonial or other tourist attractions. Many Winnebago have "Indian costumes" which they keep on hand for such purposes.

Some Winnebago have entered such professions as the ministry, nursing, office work, etc. They are a respected minority and many have retained their contacts with their communities by occasional visits, although their work keeps them away most of the time.

Except for those few Winnebago who have entered professions or have well paid, year-round employment, the level of living is quite similar in the various communities throughout the state.

A second and more dependable source of income is from handcraft done by the women. This consists of beadwork and basketry. Since 1941, the Evangelical and Reformed Mission in Wisconsin has operated a Winnebago handcraft cooperative. Prices and wares have become standardized, but the loss of originality in art form is offset by the advantage of having a regular all-year market for handcraft. The cooperative has a large mail order business and does not depend particularly upon the summer tourist trade. Its headquarters are in Neillsville, Wisconsin, and collecting stations are operated by

Indian women at Black River Falls, La Crosse and Wisconsin Rapids. Some Winnebago still set up roadside stands to take advantage of the summer tourist trade by which they can sell unique pieces and charge higher prices. In either case they realize almost a full profit over and above raw material, whereas prior to the opening of the cooperative, a large profit of winter-made goods went to local dealers who bought the wares cheaply when the Indians were in greatest need.

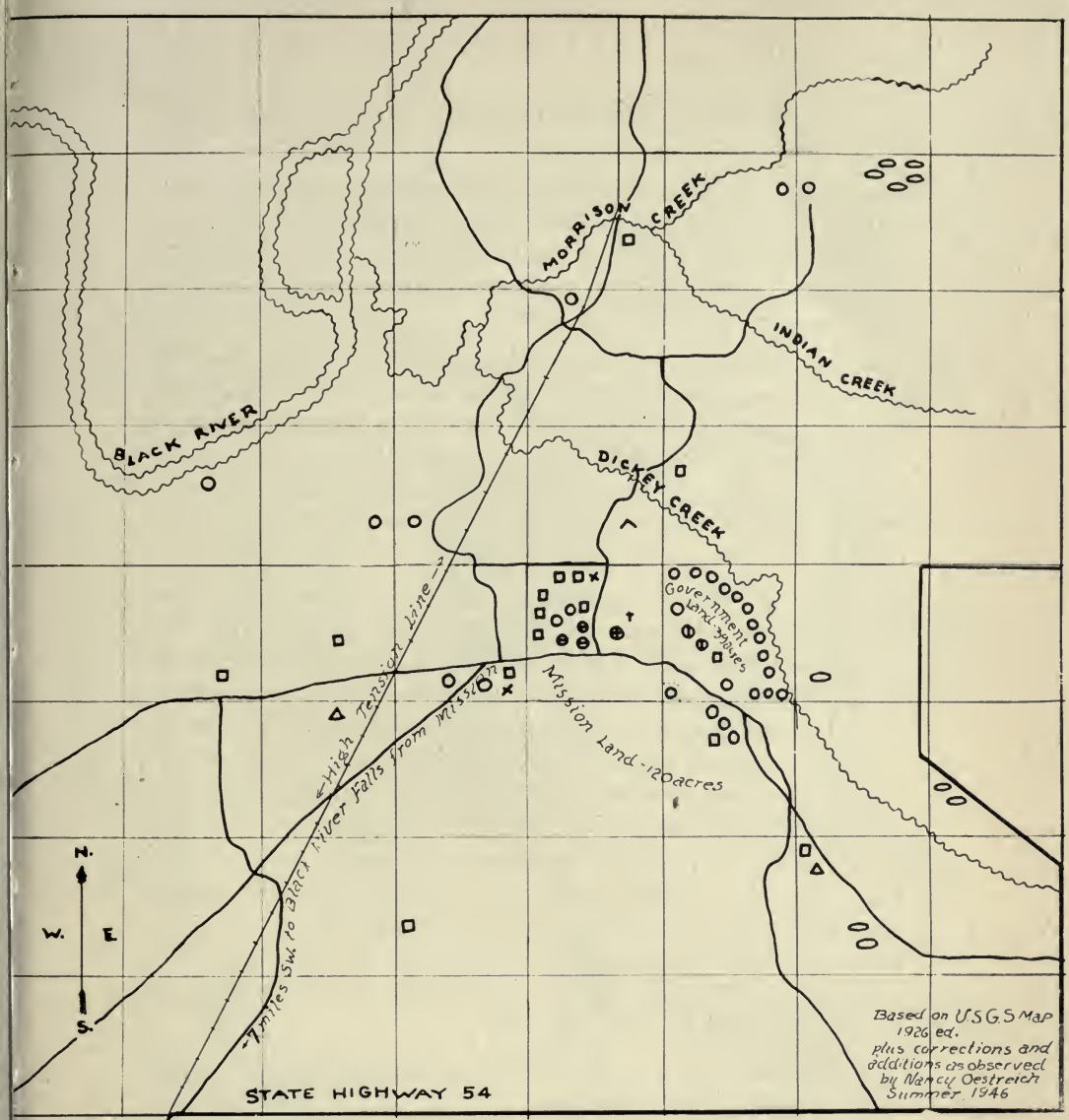
A woman can support her family by handcraft, but with household duties, and care of children to take time from productive labor, sole dependence upon handcraft makes for precarious living.

Several Wisconsin Winnebago own land on the Nebraska reservation for which they receive lease money, but this is usually insufficient to make up a major portion of necessary income. Most unmarried, widowed or foster mothers receive mothers' pensions from the state. Practically all old people rely on old age pensions. A very few families at Black River Falls rely on county aid for groceries or fuel, but what the situation is elsewhere in the state is not known.

Speaking only for Black River Falls, we can see the operation of income and expenses in terms of level of living. This varies throughout the Winnebago communities in the state, but since the source and amount of income is similar, the general situation is probably comparable.

As will be seen in Figure 2 which shows the arrangement and distribution of dwellings of the community, the focal point is the Evangelical and Reformed Church Mission. Here are the grocery store, church, and one telephone. A thirty-nine acre tract of government land adjoins the one hundred and twenty acre mission tract.[47] This land, originally part of an Indian homestead, was owned by the county which gave it to the federal government with the understanding that houses would be provided for landless Indians. Sturdy white, frame houses were built by W.P.A. labor and were assigned to Indians who

47 This land was given to the mission by the county at the time the mission was established.



LEGEND

40 acre boundaries

← 3" = One Mile →

ROADS - note, all dwellings can be reached by automobile, but only more traveled routes are shown.

RIVERS AND CREEKS

- ^ CONSERVATIVE CEMETERY
- † CHRISTIAN CEMETERY
- O LODGE FRAMES - Ceremonial
- □ TARPAPER COVERED HOUSE
- O FRAME HOUSE
- ⊖ · ⊕ MISSION BLDG. & CHURCH
- ⓞ SCHOOL BLDG.
- △ WIGWAM
- < TENT

may occupy them as long as they keep them in repair. Some W.P.A. money was spent to help defray expenses on additional tar-paper houses scattered on mission land and elsewhere. Today, only two tarpaper covered wigwams are still used as dwellings in the community.[48]

An area of about four square miles surrounding the mission and government lands constitute the more or less recognized area of "The Mission." Some Indians live a distance of one to eight miles from the Mission but are considered as members of the community. The total population is about three hundred. One to thirteen people may occupy a dwelling. Houses have from one to five rooms, usually two.

All the dwellings, including wigwams, have dors, glass windows and chimneys. A few tarpaper houses and the wigwams have earth floors. Household furnishings, though meager, are of white style and have come to be essentials: they include tables, straight chairs, cupboards, household utensils, wood and kerosene stoves, beds, cots and extra palets. The last are usually rolled out on the floor only when needed to accommodate visitors. Curtains, linoleum, easy chairs and sofas are rare, and rugs are not used. One family owns a small organ, another a small piano. There is no electricity except that the mission buildings proper are supplied by a small Delco plant. All water must be carried by the bucketful from community pumps. In summer the Indians use nearby streams for laundry and bathing purposes.

Automobiles have come to be necessities although they are not owned by all families.

The major daily expense and ever present economic concern is food. During the summer of 1946, no one was in actual need and almost everyone was able to provide for a guest if necessary. The average meal emphasizes meat and starchy foods, and seldom includes grean leafy vegetables. Favorite dishes are

48 In 1946 two families were living in tents but this was considered a temporary arrangement. In one case the family's house had burned to the ground that summer. In the other case a daughter, her husband, and children were living with the daughter's parents and the tent was used to house the overflow of occupants in the small house.

A MODERN WINNEBAGO HOUSEHOLD GROUP

Based on observations made during the summer of 1946 at Black River Falls, Wisconsin, this sketch is to illustrate house-type, clothing, and handcraft occupations of basket weaving & basket handle carving in a generalized setting typical of the area.

FIGURE 3

thick stews and soups, and fry-bread, a biscuit-like dough shaped into large thick pancakes and fried in deep fat. Most food is bought, but at Black River Falls, at least, many Indians depend upon deer and smaller wild game to help supply the family larder. The women preserve by drying or canning for winter use such foods as meat, fruits gathered at the time of the summer migrations, corn (boiled, scraped off the cob and dried in the sun), and milkweed blossoms. The last item, along with other traditional wild plant foods such as fern shoots or water lilly roots, is becoming rare in Winnebago diet.

Food also plays an important part in ceremonialism, at least among those who follow the traditional religion and among peyote eaters. Venison, dog, poultry, beef or pork are boiled, sometimes with corn for the seasonal ceremonial feasts and for other ceremonies such as the Medicine dances and so-called "sore-eye" dances. At conservative wakes the deceased is invited to partake of the large amount of food prepared for the four-night ceremonies. Food, money and other gifts are contributed by those attending wakes and the names of the contributors are read aloud sometime during the wake. This is also true of peyote funerals in which case one-night wakes are held.

The peyote do not recognize feasting as a part of their formal ceremonies, but those who give peyote meetings see to it that a large meal is provided for those who attend.

Even the Christian Winnebago fulfill the obligations of feeding without question any guest who happens to be present at mealtime. Winnebago maxims include many references to generosity and the sharing of food as a social duty.

The ideals of generosity and hospitality carry over to the right of a guest to stay as long as he pleases. This aspect of Winnebago culture has caused concern to white missionaries who admit it is beautiful in theory, but is taken advantage of by the less progressive. The energetic, thrifty Winnebago is obliged to support the lazy spendthrift.

As to clothing, the Winnebago woman of thirty-five or forty years and under, dresses much in the manner of white women

of her age and economic class. Slacks, nylons, cosmetics, bobbed and "permanented" hair, high-heeled shoes are far from unknown among all the younger women. Older women dress in the style that has been traditional for many years. This consists of a full skirt with a foot deep ruffle reaching to shin or ankle, and a full loose blouse worn over the skirt. Older women draw their hair back into a neat bun and wear pendant earrings in the lobes of their ears, and many old women's ears are bent forward as a result of the earlier custom of wearing coins or silver discs suspended from holes pierced the whole length of the helix of the ear. Older women prefer large fringed shawls to overcoats and wear moccasins in and around their houses, but wear shoes to town.

Men dress as does the local, rural white population, and children also dress in white fashion.

Figure 3 illustrates present day Winnebago clothing as well as house types and aspects of handicraft occupations typical of the Black River Falls community.

The Indian costumes, whether heirlooms or tourist ceremonial outfits, have an economic value as collateral for loans or credit from local merchants. Such articles have become standardized in value: for instance, a white buckskin dress is valued at thirty dollars. Merchants at Black River Falls hold articles for as long as five years. If they are not then redeemed, the articles are sold to tourists and "relic collectors."

Certain Indian articles, such as beads blankets and shawls, often pass through many hands as gifts which are given in connection with wakes, medicine dances, etc.

Such gift giving often results from the obligations to kin; even among Christian and peyote church Indians, sharing with kin is something of an economic factor which must be considered.

The day to day aspect of the economy at Black River Fall is reflected in the frequency of borrowing, "until I finish this basket," or "until I get my lease money." People borrow

in order to meet sudden, unexpected expenses as well as for the every day necessities of living.[49]

Social organization at Black River Falls may or may not be typical of any large Winnebago community. Certainly the controls exercised at Black River Falls, while not completely successful, exerted more influence there than when applied at a cherry camp of some two hundred people in 1944. The later group was made up of Winnebago from different Wisconsin communities as well as from Nebraska.

Apparently formal controls stemming directly from traditional governing bodies are not now functioning, such as chiefship, council of elders, the police-like bear clan, etc.

However, certain traditional informal controls are still employed. They act to maintain conformity to, or at least put emphasis on, the realization of the ideal behavior pattern. They are brought to bear on sexual promiscuity, selfishness, dishonesty, jealousy, excessive drinking, fighting, boasting, and the scolding and striking of children.

The controls themselves are ostracism, ridicule and gossip. All of them operate to remove the individual's sense of security and friendship in the group. While the fears of gossip, ridicule and ostracism are the controls, the actualities constitute the punishment. However, it is improbable if the Indian is aware of this distinction or even consciously aware of the significance of the controls as a social factor of government.

Ostracism is now employed mainly at religious affairs by conservatives against people who attend ceremonies without observing proper respect. A case in point is the ostracism of drunks who cause disturbance, or who come to mock. The Individual may be accepted again as soon as he is rational and sober, but when ostracism is brought to bear it is complete, and the individual is not even given the satisfaction of knowing he is causing annoyance to those who ignore him.

49 It must be remembered that the community incomes during the last few years have been due to the war. Men in service provided many women with allotments and a large number of people worked in war plants.

As far as the group is concerned, he just does not exist. There are hints that a similar practice is employed against drunks at peyote meetings. Ostracism may apply only to specific situations such as the case of the man who had many conservative friends in secular life, but who was always an outsider at conservative ceremonies because of a sacrilege committed when he was a very young man.

Gosip is usually employed by women, and as in the case of open arguments, side-issues, such as accusation of illicit sexual activities, are drawn in. Many Indians say they do not care if their neighbors gossip, that gossip starts for no reason at all and therefore should be ignored. Nevertheless, they take pains not to behave, or at least not to show evidence of behaving, in a manner that would bring on gossip.

Ridicule is often less overt than the other two controls. It must be distinguished from the often cruel joking which people are expected to take with a smile and return in kind. The force of ridicule lies in the fear that one may be appearing silly in the eyes of the group. The very indefiniteness of it is often a source of anxiety.

We might add witchcraft as a social control, but it has now come to be more frequently used to explain the otherwise inexplicable. It was formerly used to control selfishness as evidenced by wealth. If someone in fortunate economic circumstances was suddenly struck by a series of unaccountable misfortunes, such as loss of health, it was hinted that witchcraft was the cause. "I guess someone was jealous of him," the Indians would say.

About the only formal in-group control is by Christians on members of their own group. In rare cases an individual is excommunicated by action of the church board composed of Indians.

That the group itself feels an inability to deal with its problems is illustrated by the frequency with which people shift blame. "My girl is all right but John's girl leads her off," "The mission worker shouldn't give parties at night because young people have an excuse to stay out after dark.."

"people shouldn't hold those 49 dances so late at night, the young people don't come home," or White people shouldn't sell liquor at those pow-wows, so the Indians get drunk."

Vociferous arguments furnish entertainment for the whole community. Unless actual bodily harm is threatened no one intervenes to stop the fighting. However, sometimes the observers take sides.

When a matter becomes too big to handle, "The Law" is called in. "The Law" means the white government as represented by the sheriff. He is called upon for matters ranging from wife-beating to drunken brawling, or to getting restitution when someone's windows are broken with sling-shots.

The practice of having an Indian deputy has been unsuccessful since people who might do the job well are not interested in it. They would become too unpopular and be considered traitors. Furthermore, the pay is very small. Indians complain that the sheriff and others "pick up" Indians more frequently and for smaller crimes than they do white people. Whether this is true or not is hard to say, but certainly, unless called in, "The Law" usually leaves the people alone as long as they confine their activities to their own community.

In the case of formal white law, the punishment consists of fines or jail sentences. The threat of jail is not a sanction in itself as is the threat of the informal controls stemming from the group. If a jail sentence is not too long, it is looked upon as so much free bed and board. Among the young fellows, there is a certain amount of prestige attached to being in jail. The casual attitude toward white justice in this sphere is reflected in the broken English newspaper column of Indian news in the local paper, written by a Winnebago who calls himself the "Indian Report." The caption and byline were followed one week with the laconic, "Not much news this week. Indian report in jail.

A few of the Mission families are thought by both white people and other Indians to be above any chance of a brush with the law. A certain prestige is the reward for conforming to

white law, but it is of little use in the community unless such people also conform to local standards.

The goal in the Indian community is not really a positive force. The goal is just to be well thought of, or to have many friends, but not necessarily to be refered to in complimentary terms.

Several cohesive forces are also at work despite the seeming lack of strong formal controls. Perhaps the main factor is kinship. Although the old terminology is changing, and knowledge of clans is disappearing, in times of crisis the kin group will support a member in distress. It is perhaps the realization of their precarious economy, and the knowledge that they might have to depend upon others for support at some time which strengthens this sense of obligation.

This factor is particularly in evidence when we observe the religious life of the community. The majority of Black River Falls, community, somewhat over half, is still associated with the conservative religion. Conservative does not mean old fashioned. Both progressive and and backward individuals from the point of view of schooling and acculturation to white ways may be conservative. Much of conservative ritual emphasizes kinship groupings. The recent war brought an upsurge in interest in ceremonialism pertaining to the warpath. The returned veteran has been given much of the respect bestowed upon warriors in the old society.

The second largest religious group is the Christian. The mission was established in 1876 and the first baptisms were held in 1898. The first converts and their descendants are still the main force in the Christian group, but the offspring have tended to become less strict in religious observances. Furthermore, Christianity does not necessarily indicate greater acculturation; the old Christian women dress as old women throughout the community; old Christians of both sexes prefer to speak Winnebago rather than English; and by virtue of their age and early training are good geneologists, know curative roots, and gather the few wild plants still used as food. Even among Christians, some of the elders have a

profound respect for witches and medicine men whom they fear as workers of evil magic. Fear of poisoners is even more widespread.

Doubters of magic are found among young people of Christian, conservative and peyote families, but even here in all three groups there are indications of lingering old beliefs.

The peyote group tries to form a bond between Christianity and conservatism. However, it fails to impress either of the latter two groups. The Christians hold peyote to be a sort of bastard sect, and the conservatives resent its newness. To the conservatives, Christianity is preferable to peyote since the former at least has a long history and tradition.

However, the enmity that once existed between members of the different religious groups is gone. Most extended families are split as to religious affiliations of their members, but in most households, that is families dwelling under one roof, the affiliation is usually that of the father, unless the mother is a Christian, in which case the children follow the mother's religion. Many people who state an affiliation to Christianity or peyote take part in and contribute goods to conservative ceremonies when their own kin are acting as host. One constantly hears this justified by such remarks as "When it's my families turn I like to help them out." Many people take an active part in more than one religion in order to see their family and friends at the different gatherings. Some peyote people and Christians keep up conservative affiliations because they enjoy the dancing or wish to share in the free food. Only the very few strict Christians disapprove of active participation in more than one religion.

Conservative wakes are a particular example of kinship superceding religious differences in crisis situations.

A second factor, already touched upon, which negates the influence of religious differences as a disruptive force, is education. The amount of formal schooling among members of each group varies over a similar age range, and people tend to establish friendships in terms of age and similar secular interests.

The educational level of people up to thirty or forty years of age is usually up to the eighth grade; however, exact statistics on education are not available. Only people over sixty, and particularly such women, are apt to be illiterate. A very few among the oldest do not speak English.

A few children still attend boarding schools such as Flandreau, South Dakota; Genoa, Nebraska; Neillsville, Wisconsin, etc. The Indian school at Tomah, which for a period, attracted many Winnebago was closed a number of years ago and during the war was made into an army hospital. The trend now is to enroll children in county or city day-schools. At the present time, in such rather remote communities as Black River Falls, children finish the eighth grade in rural schools and then attend highschool in nearby towns. They may commute by bus or may live with families in town. This has been a source of acculturation since children often work for their room and board in white households. Few children attend school beyond the time they are eighteen. During the school year 1946-47, two girls and three boys from Black River Falls were enrolled as Haskell, having finished their high-school education at Black River Falls. The girls plan to go into nurses' training upon completion of their course in secretarial work. One boy intends to complete a college education at the University of Kansas.

The incidence of college education for the tribe in Wisconsin is small, and for the most part includes those people who came under the influence and guidance of missionaries. These college educated Winnbago attended religious schools and were prepared for the ministry. There are a few cases of Winnebago who attended secular colleges and universities for varying periods of time.

Generalizing for the Wisconsin Winnebago of today, one may consider them as a racially and tribally mixed population of some fifteen hundred people living in small communities scattered throughout the state. They are definable by their own terms of kinship-friendship and language. The general economy is of a day-to-day nature and depends primarily upon crop-gathering migrations and women's handicraft.

Clothing,shelter and daily needs are roughly comparable to the poorest class of rural whites. In the community studied at least, social organization revolves about traditional informal controls and rewards, but the old formal controls are lost. "White law" is the final arbiter and punisher in cases beyond the scope of the community controls. Cohesive forces are a sense of kinship and friendship coupled with coordinate obligations. This is emphasized by a sense of minority identity.

The group feeling is illustrated in that despite the presence of three religious factions, religion is superceded by kinship. Friendships occur readily between people of different beliefs.

White education has tended to bring in a variety of new ideas to members of all three religious groups, and informal contacts in trade, travel and friendship have tended to introduce standardized ideas of white social and economic needs.

CHAPTER IV

TRAINING THE INDIVIDUAL FOR ADULT LIFE

In this study "childhood is defined to embrace the period from birth to the age when the Winnebago consider a person eligible for marriage. The individual becomes a social adult upon assuming the responsibilities of a spouse and potential parent. However he may reach physical maturity and carry out many adult tasks long prior to marriage.

Data will be presented in terms of factors acting upon individuals and not as a generalized description of "the individual," since both the mode and notable deviations from the mode must be considered.

The topics to be discussed are arranged in chronological order embracing that period above defined as childhood. While the divisions of age are more or less arbitrary, they have grown out of the emphasis given to the data by the informants who were originally questioned in the study of the child.[50] Certain of Kardiner's topics have not been considered, and some new ones have been added in order to presnt more clearly the aspects which characterize Winnebago society. Such phases of child care and training that carry over a time span will be dealt with in the entirety when first introduced.

Each topic will be considered in terms of old, transitional, and new practices, but due to lack of historical and first-hand data, some topics which merit extensive treatment may only be dealt with superficially. Let it also be remembered that most data presented in this chapter were gathered by the writer in one community over a relatively short period of time.

Often we are unable to say definitely when a shift in custom occurred because many changes were so gradual that they came to the notice of the people only when they were practi-

50 Abram Kardiner and Association, **The Psychological Frontiers of Society** (New York: Columbia University Press, 1945). See "Key Integrational Systems" pp. 26-27.

cally established. Therefore, such terms as "about twenty years ago," "toward the turn of the century," etc. must be relied upon rather than precise demarcations of time sequence.

Pregnancy and Birth

In the old society the welfare of the mother and child before as well as after was a cause of concern and interest in the society. Children were wanted, and the arrival of a new member of the community was prepared for and met with formality.

During pregnancy the mother had to observe certain restrictions such as not roaming alone in the woods for fear of meeting snakes and other animals which would bring bad luck. She was not to have dogs (and later cats) around her nor to sleep in the daytime. She was to take a cold bath every moring of her pregnancy. Certain food taboos are mentioned by present day informants and are of the familiar "pre-natal influence" type which may or may not have been acquired through the influence of early European settlers.

Birth took place in a hut some distance from the family home and midwives assisted at the delivery. Radin describes three positions for delivery: "supported by the arms, which were passed over a pole held in the crotches of two forked sticks driven into the ground; suspended between two stakes; flat on the back."[51]

A woman in labor who cried out in pain was subject to jests by female relatives.

Special medicines were administered to the mother to assure a free flow of blood after the birth.

The infant was bathed after birth and its navel cord was cut off and ewed into a small bag which was suspended from the cradle board. A male relative took the afterbirth wrapped in a blanket of cloth and tied it high in the crotch of a sapling in the belief that as the tree grew straight and tall so would the child.

51 Radin, **BAE, op. cit., p. 126.**

Men were not supposed to be present at the birth. The father was advised to travel during his wife's pregnancy so that by his movements he might help his wife have an easy delivery. One of Radin's informants said the father was to hunt during this period in order to assure the mother's having enough milk for the child. This procedure was therefore known as "looking-for-milk."[52] A present day informant, fifty years of age, said that his father, "as was the age-old custom," was told to visit relatives in a nearby village a short time before the expected birth. Thus, the informant explained, a father might not know of the birth of his child until days after the event and after all the excitement had died down. He was told not to worry since the mother was continually instructed by midwives, "women medicine givers of high repute," in the best ways of caring for herself.

Boys and girls were equally welcome, but if the child was a boy, the father gave a feast to Earthmaker and thanked him.

This is apparently a different feast from the naming ceremony which was given for both boys and girls. The formal naming of a child might take place shortly after birth or not until the child was several years old, depending upon whether the father could afford such a feast.[53] Children were named according to clan from a a group of names representative of some aspect of the origin myth or habits of the clan animal. The name was chosen by a clan elder. A present day informant said that the old men of the clan suggested two names and the mother was allowed to make her choice of one of them. A child might be named by a warrier to commemorate some deed, or might be named after some old or famous person to perpetuate a particular name. In addition to formal names, there were names for boys and girls which indicated birth

52 Ibid.

53 Radin, BAE, op. cit., p. 192. Radin mentioned a case of a father who was unable to pay for a birth feast and allowed his wife's relatives to give the feast and name the child according to their clan. A practice which has become common in recent years and may or may not be a traditional variation of the ideal pattern, is to name children at any feast the father happens to be giving, the important thing being that a large number be gathered to learn of the name.

order, and these names were used in every day conversation. If a child died, even shortly after it was born, its birth order name died with it. A new series of birth order names was begun for each group of half siblings in a family.

"On the birth of a child the sisters of the husband were supposed to show his wife especial marks of courtesy. They always gave her valuable gifts, such as goods or a pony. They were glad that he had offspring, the people said, and even permitted their brother's wife to give the presents received from them to her own relatives. The presentation of gifts was called 'cradling-the-infant' Gifts were also presented to the wife's brothers."[54]

We find that the following changes have taken place in matters relating to pregnancy and birth. The first hospital deliveries or home deliveries by doctors rather than midwives began to occur about twenty or twenty-five years ago. Even at the time when midwives delivered the majority of babies, we have information that fathers were not necessarily absent at the time of the birth of their children. Furthermore, births might even take place in the family dwelling rather than in a separately prepared hut. Data to date indicate that these breaks with tradition were noted within the lifetime of present-day informants. It is not certain whether deliveries in the family dwelling by midwives, and whether the presence of the father in the home at the time of the birth were transitional to the time of delivery by doctors and the common occurance of "hospital babies." It may be that due to extenuating circumstances at the time of the birth these seeming breaks with tradition were but long accepted variations in the formal pattern.

Since about twenty years ago many babies were born at the Indian hospital at Tomah, but the long trip was often difficult to make; in many cases midwives or the local doctor were instead called in to assist at the delivery. The clinic at Black River Falls is now paid by the Indian Service to care for Indian patients and all Indian children of nine years and

54 Radin, **BAE**, op. cit., p. 126.

under in the Black River Falls community are "hospital babies." The most recent case of delivery by a midwife happened in the community a little over nine years ago, and even at that time it was considered unusual.

The advent of hospital babies seems to mark a sharp era of change in methods of caring for the infant, but many old ideas still persist. Until quite recently, Indian medicines were administered to the mother upon her return home; belief in pre-natal influence is still strong. The cold bath each morning of pregnancy is definitely gone, but just when it was abandoned is not known.

One informant who had been a midwife was inclined to be tolerant toward mothers who cried out in pain, but a young Indian woman who had been a nurse in the hospital at Winnebago, Nebraska, remarked that Indian women seldom cry out during delivery of children despite admonitions by the white doctors to do so.

Old women state that the mother was to rest ten days after the birth of a child, which on the surface would indicate the influence of "hospital babies." However, such was the case even when delivery by midwives was common.

The giving of gifts to the mother and her brothers, if it still exists, is certainly not as formalized as it was years ago.

Today, children of most conservative families, or those whose parents belong to the Christian or peyote group but have a conservative grandparent, are given clan or war names. Sometimes no formality surounds the naming, but most boys at least are given names of a traditional manner if they come from conservative families. Peyote people believe in Christian baptism, but sometimes also name children in reference to Biblical stories. The names are Winnebago words with proper male or femal suffixes. For instance, a little girl was named "Wira gun ske win, ga," which means "Star." All children have English names under which they are registered in the courthouse and in school, but at home they are usually called by their birth-order names. Surnames have been

in use for over fifty years and are often the translation of the Indian name of the first person in the family to be registered in the government census. Some Indians took English surnames at that time, and others had been using the surname of some white ancestor.[55] In the last case, these are usually French names such as Decora or St. Cyr. As late as the 1930's some old Winnebago did not know their grandchildren's English names. Today, mothers usually bestow English first names.

Traditionally the infant was constantly cared for by the mother. She kept him near her whenever possible and often played with him and fondled him. The father, siblings, and other older people in the household also indicated their fondness for the child so that he was seldom completely alone and unattended.

A cradle board was prepared before the child's birth; sometimes the same board was handed down from one generation to the next. The board was rectangular, about two to two and one-half feet long and about fifteen inches wide. It had a movable foot-board that could be shifted to accomodate the support of the growing child. A flattened or depressed arch of wood was attached over the cradle-board at about the level of the top of the infant's head. Ornaments might be suspended from this arch presumably to amuse the child and beautify the board. The board was padded with cattail fluff (later with absorbent cotton over an oilcloth pad). Less padding was placed under the head than the rest of the body in order to assure that the child would have straight shoulders and back. When the padding was soiled it was replaced with fresh material. In the case of male infants, the penis was drawn through a hole in a flat, thin piece of bark to direct the flow of urine to the foot of the board.

Informants insist that the cradle-board was used only when

55 One of the difficulties in tracing genealogies is due to the fact that members of the same lines to different surnames at the time of the first census. A case in point is that of the four brothers who were registered respectively as John Cloud, John Redcloud, Charley Blowsnake, and John Johnson.

the child was to sleep, so that in a short time an association of sleep and the board was built up in the child's mind. In this way a restless and crying infant could be quieted by placing him on the board. The child was well covered and broad bands of material were bound across him. His arms were held at his sides to that he would not wake himself by waving his hands in his sleep.

At night, just before the child went to sleep, he was nursed on the board. If the child awoke during the night and seemed hungry, he was also nursed while on the board.

The sleepy or sleeping child in his cradleboard was placed against a tree near where the mother worked out of doors.. Informants today recall no tumpline or other special type carrier for the board, but say a mother might carry the child in the board by means of a shawl slung vore her shoulder and around her waist. Children were carried in this fashion even when they were in the crawling and toddling stage.

The child usually outgrew the board at about the age of six months. Informants who used the cradle board for their children say that they replaced the board at this period with a rope and blanket hammock, but this may not be a very old practice.

There is no definite data as to the frequency with which children were bathed, but lotions and salves of animal greases are mentioned for use on infants as well as adults as a protection for the skin.

Infants' hair, according to some informants, was never cut because it was believed that one should keep some of one's baby hair throughout life. A mission teacher mentioned that as late as thirty years ago, even little boys whose hair was cut in the white fashion kept a small braid of "baby hair" bound up on top of the head.

When an infant was able to crawl about it wore either a skirt slit at the sides or a short dress. If this was not a traditional style, it was at least not a very recent one. The

skirts were designed to keep the child covered modestly covered fore and aft but allowed for a minimum om mess to the child by excretory functions.

Since wigwam floor was made of earth it could be cleaned easily by the use of fresh earth.

Today, the infant is still the center of attention and is played with and fondled by the mother and others in the household.

The cradle-board has been completely replaced by the aforementioned hammock, by buggies, or both. The cradle-board was given up rather suddenly and its loss seems to coincide with the advent of "hospital babies." It was also at this time that a general change to white style household furnishings began to occur. [56]

Mothers prefer to sleep with the infant or the infant may sleep in a hammock strung over the mother's bed. When the child has outgrown the hammock, usually just before the age of one year, it is bedded with the mother or a sibling. I have no information as to the attitude of the father toward the infant in the parental bed, but among siblings in some families, the night-time care of the infant is a sought after honor. In many cases children are bedded in a buggy until they outgrow it, but only a few special "baby beds" were noted in the community.

Infants are wheeled about in buggies by the mother and older siblings, both boys and girls. On occasion one sees a grandmother carry her grandchild on her back in a shawl.

Infants are bathed almost daily and are dressed, diapered and wrapped in blankets in the manner of white babies. They seem to react to bathing and dressing with the same variety of pleasure or displeasure as may be found in any group of white infants.

56 Casselman, **op. cit.**, pp 37-38. As late as the 1930's the majority of Black River Falls Indians were reported to be living in wigwams, sleeping on hay on the ground. Cooking and heating facilities were supplied by open fires in the centers of the dwellings. The wall coverings were often cardboard or tarpaper rather than bark.

It is just before the time for sleep that the infant is most fondled, mouthed and talked to.

Any hint of ill-health in the child is usually sufficient cause for the mother to take it to the doctor. As late as the 1930's there was a high frequency of skin diseases such as common impetigo, among infants and other children. The efforts of the missionaries and rural nurse have been directed at the eradication of such diseases by stressing the importance of frequent bathing and the washing of clothes which have come in contact with the disease. Today skin diseases are rather rare among infants and children.

Children are seldom wilfully neglected, but the children's wishes are often indulged in to an extent which on the surface appears as negligence.

Years ago children were nursed whenever they desired food and if they were not hungry, food was not forced upon them. As older women put it, "They didn't like children to cry for food, they were afraid they might cry themselves to death." If a mother had no milk, another woman might act as wetnurse. When no wetnurse was available, or if a child would not take milk from the breast, the child was fed clear soup or tea from a spoon. Taboos may have existed against the use of animal milk, but none are now known, and bottles have been in sporadic use for a long time. However, it is believed that mother's milk is superior since it does not make babies constipated. There is no information concerning the death of nursing infants due to lack of food except during the time of the removals when both adults and children died of hunger. The missionaries noted that until recently many infant deaths occurred after weaning. At time the healthy and chubby babies often became thin and listless.

Weaning took place when children were between the ages of nine months and a little over a year. It was a sudden process. One means of weaning was to send the child away among relatives for several days so the mother's milk could dry up. Sending the child away was designed to prevent the mother

from relenting in the weaning process upon hearing the child cry It was also a means of accustoming the child to new food.

Another means of weaning was for the mother to spread some bitter substance upon her nipples.

Apparently the fear was not so great that a child might cry itself to death when the child was at an age to be weaned. A child was given semi-solid food when it had two teeth in both the upper and lower gums.

The family gathered twice a day to eat, but there was always a kettle of food from which children and adults might help themselves.

Thus, while weaning was abrupt, the child was immediately given substitute food whenever he wished to eat, as had been the case in breast feeding.

Present-day methods of nursing and weaning show several stages of transition. Mothers seem to try out several methods and by the third or fourth child, have arrived at the one they consider most satisfactory.[57]

A large majority of the women today adhere to the belief that a child should be nursed when it is hungry and not forced to eat when it does not wish to do so. Nursing occurs about every three or four hours in the twenty-four and tapers off as the child chooses to be fed less often.

Bottles have been used to a small extent for about forty years, but even today there are no set rules about their use and a rather strong sentiment against them. It is felt that they are inconvenient to use and harmful to the baby since mothers are not always careful to heat the milk properly.

Mothers seem to nurse children somewhat beyond the age of one year, but nursing beyond two years is exceptional and a source of family joking.

There are no clear-cut correlations in the the manner of weaning and of family backgrounds of greater or lesser acculT-

57 Informants' accounts indicate that even in the time that old women now close to eighty years had children, the nursing period of a child might extend over several years.

uration. However, young mothers who live with older people such as parents, tend to nurse children up to about the age of a year, then feed children milk from a cup and give them semi-solid food in a somewhat traditional fashion; "A little of everything."

Other gradually augment and replace breast feeding with bottle feeding and later augment the bottle feeding with cup and spoon feeding. Thus they do away with the sharp break occasioned by weaning. It was impossible to notice any different effects due to the different types of weaning since the field season was so short and the writer could not be sure if seeming differences might not be due to other causes.

Although a few young mothers attempt to feed children according to schedule, such procedure is frowned upon, and even "bottle babies" are usually fed when they wish food, but food is not forced upon them.

The white custom of eating three meals a day has completely replaced the older custom of two meals a day, but just when the change occurred is not known. The whole family gathers at the table, unless there are so many children that some must take their plates and find room to sit down away from the table. Highchairs are used generally for the smallest children, and the mother and siblings see to the feeding of the youngest children. Often a child which must be fed is held in the mother's lap. From the time that a child can grasp and aim accurately, he is given food and allowed to manage for himself with fingers and spoon.

During the meal there is quite a bit of conversation and joking. Children tease about the favored pieces of meat or last spoonful of food in the serving bowl. The main articles of tableware are individual large, shallow soup plates; knives, forks and large spoons; large serving bowls and pitchers.

At religous feasts people are expected to bring large wooden bowls and spoons, but even conservatives register disgust that at these feasts some people fish around in the large kettle with their hands in order to find pieces of meat.

If children do not return home at mealtime, most mothers assume they are eating at friend's house, although mothers do not encourage such "eating out."

The Toddling Stage

There seems to be no deviation from the traditional practices concerning the inception of walking and talking. Children are not instructed formally in either case; the first step or first word are not a cause for the family to take particular note.

Mothers remark that once children have begun to walk they do not wish to be carried or helped, although when the mother is in a hurry or the path is rough, the toddler holds her hand or one of her fingers. If a child stumbles or falls and is not seriously hurt, the mother ignores his tears or even chides him for his clumsiness.

In regard to talking: one informant stated that there was no need to teach children to speak since they were in constant association with adults and older children in the wigwam, heard speech constantly, and thus came to speak naturally. The picture is little changed, although today, children are bilingual. Until just a few years ago children learned only Winnebago in the home. They did not learn to speak English until they attended school, where they learned it simply by hearing it spoken by teachers and other children. According to white standards Winnebago children are sometimes slow in learining to speak. Even three year olds who do not speak much are not prodded to begin speaking but are allowed to take their own time in the matter of speach.

A side-light on the subject of speaking was supplied by a male informant of conservative background. He stated that an involved song was sung in connection with legends told in the winter time and the speed with which the child learned the words and tune were taken as a measure of the child's intelligence. In the learning of both walking and talking there are, of course, exceptions. Older siblings sometimes attempt to teach younger ones, but such instruction is usually haphazard.

The tendency to allow children to take their own time in

learning to walk and talk carries over to toilet training. The prevalent attitude which we assume to be a hold-over of an old practice of older people and many young women is that such control should not be forced upon the child. Years ago the child gradually noticed older people withdraw to the woods to allow for excretory functions and the child gradually followed their example. The associated idea seems to have been modesty. Even childrens' genitalia were covered from the age that the child began crawling. The exact age of complete control seems to correlate with the individual child's ability to walk and observe.

Today many mothers follow the same procedure, but the short skirts mentioned earlier are replaced by diapers or train- short skirts mentioned earlier are replaced by diapers or "training pants" with little effort made to train). Privies are now used.

Most women who do train children do so with the idea of greater cleanliness to the child and less trouble for themselves. A few women spank or scold children for lapses in training, and thereby instill a fear of disobedience rather than a respect for cleanliness. When changing diapers mothers sometimes hold their noses and say "si sik" (bad) so that the children see and hear them.

Discomfort seems to contribute to some of the present-day learning of self control. Little folk often shed soiled pants or diapers and wander home nude, much to the mothers' embarrassment.

The tendency among some mothers to begin to toilet train children of about the age of one year does not seem to be a direct effect of white influence but seems to stem from several sources. One is the change in garment style which makes laundering a more frequent chore if the child is not trained. Another is the change in house type. Most houses now have wooden floors which are harder to clean than the old wigwam floors.

The trend toward training children is very gradual, depending on individual mother's interest in the matter, but

no strong sentiments are expressed toward forceful training as are expressed toward forceful feeding.

Children are not allowed to masturbate or play with their genitals, and the same holds true today. Older siblings have been noticed to stop younger ones from unnecessary touching of their genitalia with the admonition that it was "bad."

(The following information was collected druing the summer of 1948 and is here included for possible value in comparative studies of child care and training. It was reported that up to perhaps twenty years ago it was common practice for someone to call to a child when the family and child had been away (e.g. to the stream to wash clothes.) and were about to return. This particular type of calling was to small children up to about a year or two in age who might actually be with the family and ready to leave, but the special calling was designed so that the child's "soul" would not linger but return with the child. The informant reported that she was surprized to find this done on at least one occasion within the year 1948.

It was also reported by the same informant that at least between twenty and thirty years ago any child who cried continuously and could not be calmed by ordinary methods would be taken to a special person to be sung over. This person could be any man or woman who had thus been sung over in his or her childhood and was thereby privileged to learn the songs and sing over the children who cried. The informant is a woman in her late twenties who grew up in the vicinity of Black River Falls. She was sung over in her childhood although she did not have the opportunity to learn the songs from the man who sang over her. She was told of the incident by her mother. It appears from the scanty data at hand that such singing was only done for very small children and particularly infants.)

The Pre-Pubertial Stage

In the old society children were seldom punished until they were of an age to understand really what they had done to

displease their parents. Very small children were frightened by the mention of owls or were punished by having cold water thrown over them. For older children punishment consisted of the cold water treatment, fasting, and general withdrawal of love. Scolding and striking of children was definitely discouraged by the society. The mother might threaten or administer punishments, but the usual course was to call in an uncle who would threaten the erring child by saying he would pour water on him or throw him in a creek. Sometimes the threats were carried out, and the mother just stood by and ignored the child if he came to her for comfort. Old people say that the uncle punished children as duty, that he did it for the child's own good, but that actually it was his love for the child that prompted his seeing to its discipline. However, many informants state that they feared the particular uncle singled out by the mother as the one to punish her children. Such uncles often threatened children even when they were not naughty, and people often tell how they hated their punishing uncle and wished he would die. Occasionally an old woman took on the job of general threatener and child punisher and she threatened to cut children with a knife and even carried out such threats.

When a child was punished by being made to fast, he was an outcast in his family during this period. Charcoal was used to blacken the faces of little girls and the whole faces of little boys as a sign that they were being punished and were not to be offered food.[58] The children had to meditate on their wrongs and give evidence of having cried in self-pity before they were readmitted to the family group after having completed their fasting.

Women were admonished not to strike or scold their children, nor to take their children's part when strangers scolded them. Children were to be kept at home away from strangers unless the mother had trained them properly A wife was advised not to take the children's part if the father should scold them. The formally recognized ideal was that mothers

58 One thirty year old woman said she could have eaten with relatives, but never thought of doing it when she knew she was being punished.

should be honest with their children, in order that children would pattern their behavior after the good example set by the mother.

Just what deeds required punishment is not known, but the main force of punishment seemed to lie in the withholding of maternal love and in the taking away of the child's sense of belonging in his family.

Reward took the form of praise for tasks well done. Furthermore, a child (except when being punished) could always rely on the mother and other older people for comfort and help when he required them.

Today there is still a strong sentiment voiced against striking and scolding children although mothers are coming to rely upon the white punishment of "spanking" children. This is usually a switching across the legs rather than the buttocks. Fasting has taken the form of "I'll send you to bed without any supper," rather than the formalized measures once employed. However, fasting as a punishment was used as late as twenty years ago. Many mothers still threaten children by calling upon an uncle to punish them, and many also use the traditional frightener, the owl. Some mothers employ frighteners of their own choosing such as a dog or a drunken man. Mothers tend to shift blame or dislike for themselves as the punisher. It was noticed that many children today tend to be afraid to be alone in the dark, particularly out-of-doors. One mother felt that threats concerning owls made children afraid of the dark.

Difficulties arise when a child grows too old to be frightened by threats and too big to fear any physical punishment an adult might administer. In some cases distraught mothers have called upon the sheriff or local judge to reason with or punish children who are almost fully grown.

Reward still takes the form of praise, sometimes of gifts. Children who get in trouble outside of the family group certainly rely on parents to stand by them. Only the unusual parent will not take the child's part even if aware of the child's guilt.

Until about thirty-five years ago, children from the age of six years to the time of puberty were given formal instructions in proper adult behavior. These instructions, which were daily lectures, varied for boys and girls. Radin believes that such formal training was probably given by the father; the present writer is inclined to believe that it was more likely a grandfather or great- grandfather for the following reasons: in the old society able-bodied men were often required to be away in search of game. Also, older people who received such training state that it was from grandfathers or great-grandfathers, of either the maternal or paternal side. One man received such training from a maternal grandmother.

Judging by the two extensive accounts quoted by Radin as representative of the general type of lectures, we note that there was no effort made to teach actual tasks, but rather the lectures were designed to inform the individual how to conduct himself in the group in order to win approbation and esteem. Boys were advised to fast for spirit blessings, or to learn medicines or buy them from those who had been blessed. They were encouraged to be brave warriors, good providers, kind to their wives but not overly indulgent of their wishes if it meant loss of esteem in the group. Girls were told not to use medicines, but to win approbation as kind mothers and faithful wives. They, too, were advised to fast, but for the future benefits of a happy marriage.

Radin states that such instructions ceased at the inception of ritual fasting. He says that this fasting began at puberty. However, older informants of today who fasted in their youth say that fasting began when children were very young. It may be that fasting for visions began at puberty, but certainly fasting for its own benefit in teaching stoicism and to win approval from supernatural forces began when children were six years old and younger. This fasting is not to be confused with punishment fasting since punishment ostracised the individual but ritual fasting brought approval.

In any event, formal teachings are no longer given, and this may be easily due to the fact that the subjects discussed are no longer relevant to the growing child: fasting, warfare,

medicines, traditional men's chores of hunting and women's chores in setting up camp.

Children gradually came to feel the influence of the kinship system. Just how or when the child was completely conversant in all the kinship terminology and proscribed behaviors is not known. Apparently children were expected to learn of these matters by observation or by hearing reference to them, since the formal training given children assumed that the kinship system was already learned.

Awareness of certain kin must have occurred at an early period. In discussing the matter, we shall consider only those kin who had direct bearing in the child's life rather than attempt an analysis of the system.

The individual's realization of membership in his clan and moiety was stressed through many social factors, but we do not know what particularly brought this realization, or at what time in the individual's life it occurred. The moiety placed taboos on marriage between certain groups, but the individual was already aware of these taboos before he began contemplating marriage. The facts that the various clans had special duties, were opponents in La Crosse games, and were seated separately at feasts, had their own folklore and personal names, and that casual references to the clans and moieties were part of everyday language, all contributed to making them apart of the child's knowledge.

Today the factors stressing clanship are less apparent in everyday life, and even the taboos on marriage have tended to break down as they concern the moieties or even the clans. Kinship, according to Indian terminology, is the main factor that is considered, and this is not in terms of blood kinship in a clan. Intermarriage with whites has caused some families to be without clans.

Mother. The term here refers to the child's true mother, step-mother, or foster-mother. The mother's sisters were called by terms derived from the root word for mother depending on the aunt's age in relation to the child's mother. The mother's

mother's sister's daughters were called by mother terms but we have no data referring to the actual behavior of these people.

The ideal mother was pictured in Radin's account of formal teachings to girls and has been discussed earlier. There is one other factor apart from the mother's training of children and setting them a good example:

> . . . do not show your love for other children so that strangers notice it. You may, of course, love other children but love them with a different kind of love from that which you bestow on your own children. The children of other people are different from your own children, and if you were to take them to some other place after you had been lavishing so much love on them they would not act as your children would act under the same circumstances. You can always depend upon your own children. They are of your body. Love them, therefore.[59]

Mothers were furthermore responsible for the feeding of their children, caring for their wants, and fashioning their clothes. To just what extent the ideal pattern of motherhood was carried out is difficult to say. Older informants recall their mothers with deep affection, and older women particularly give evidence of having learned household tasks and proper behavior as well as special skills from their mothers. Men too recall their mothers as wise and kindly.

Perhaps the reason that people recall so clearly their punishments during childhood rests in the fact that in addition to the actual punishment, the mother withheld her customary love and attention.

We must consider two statements referring to the ideal mother which are even quoted occasionally today: "A mother's children belonged to her brother." "A woman was supposed to think more of her brother's children than her own."

The reason for the first statement is obscure, except that the maternal uncle was considered the person whose duty it was to discipline children. The explanation given for second statement was that a woman's children belonged to other people, but that her brother's children were "of the same

59 Radin, **BAE, op cit.,** pp. 178-179.

blood." That is, they belonged to the same clan. While the uncle still functions as disciplinarian in many cases, the sense of clan tie to the brother's children is present only to the extent that the phrase is remembered but without any depth of meaning.

In the old society women were taught that motherhood was the ideal feminine role. However, abortions were known and apparently used, although data referring to them concerns only cases of unmarried women.

Today a few women have been known to attempt to induce abortion by falling down or by taking some medicine. These cases refer to married women who did not wish the responsibilities of motherhood.

Several cases exist where children were left with the mother's mother, mother's sister, or even the father's mother or sister if the parents were having marital difficulties. These temporary arrangements have been known to last indefinitely. Neglect in caring for a child is sufficient cause for someone in the community to protest to the sub-agent or to the health authorities and the child is placed in the care of some willing relative. Sometimes neglected Indian children are placed in privately operated orphanages or "children's homes" where the county pays for the care of the Indian children. In other cases local white people have provided foster homes for Indian children.

For the most part, the present attitude of the mother toward the child as its provider of food, clothing and a home. The child is given affection, particularly when small, is defended, often even when in the wrong and is promptly cared for when ill. The mother usually takes small children with her when visiting or shopping or working. She sees to it that the children may now and then be given some special entertainment; movies, carnivals, the county fair, commercial pow wows. Often enough it is the mother's interest in these events that prompts her attending them, but the children are taken along. In recent years birthday parties have become a part of the child's life if the family's finances will allow them.

Although overt displays of affection diminish as children grow older, children are cared for and even "unwanted" children are given the same attention as the rest once they have arrived.

Mothers decry the practices of scolding and hitting children, but do indulge in them.

Childless women are pitied, partly because children are wanted for their own sakes and partly because a woman looks to her children for companionship and support in her old age.

While similar classificatory terminology applied to fathers as well as mothers, we will here consider only true fathers.

The traditional advice, again considering Radin's accounts, would lead us to believe that the father's only responsibilities were to provide well for his children and to indulge their wishes.

> If you fast a sufficiently large number of times, when in after life you have children and they cry for food you will be able to offer a piece of deer or moose meat without any difficulty. Your children will never be hungry. . . Never do anything wrong to your children. Whatever your children ask you to do, do not hesitate to do it for them. If you act thus people will say you are goodnatured.[60]

Judging from the advice given girls, it appears that a father might scold his children—"If your husband scolds the children, do not take their part, for that will merely make them bad."[61]

While a man was expected to be a good father, his actual duties to his children were few. One is inclined to wonder why the advice to boys does not include instructions in the role of uncle as disciplinarian.

However, it was the father who gave a feast of thanksgiving to Earthmaker when a son was born, and the father provided the necessary food for naming feasts for his children.

Most older informants whose mother were not widowed by divorce or death remember their fathers as kindly people and in some measure as companions. In some cases fathers were

60 Radin, **BAE, op. cit.**, p. 170.

61 **Ibid.**, p. 177.

remembered with affection for the time they spent in telling stories to their childrn.

Today fathers feel no special responsibilities toward children except to contribute to providing them with food, clothing, and shelter. Occasionally a father scolds or even punishes children by striking them, but such behavior meets the disapproval of the mother and anyone else who hears of it. Fathers are inclined to be very indulgent with children, particularly the younger ones which they carry around and fondle. Fathers are also inclined to boast about their older sons, especially those who are war veterans. One case is known where a father would not offer aid to a son who had run afoul of the law since he considered his son in the wrong. Another father would not accept his daughter and her illegitimate child in the household until it appeared that the girl would be unable to get along on her own.

In most cases of separation, the mother takes the children, but occasionally the father will take them and put them in the care of his sister or mother until he remarries.

Uncle: The term uncle refers to the mother's brother and his sons and to the mother's mother's brother's sons.

The only data concerning the uncle as disciplinarian is from accounts given by living people and these show much variation. Not all uncles were looked upon as disciplinarians, but only the specific uncle so chosen by the mother. In most cases this was the mother's brother's son. However, in one case it was the mother's half brother and in another the mother's father's brother's son.

Thus, while the punishing uncle seems to have been most usually the mother's brother's son, the role tended away from the most obvious uncle, the mother's true brother. One reason for this might be that the mothers brothers were sometimes closer to the age of the children of the mother than to the mother, although even when the brother was considerably older, the role was assigned to his son.

If the actual relationship of the punishing uncle varied, his role in relation to the child did not. He was an object of fear

and respect. One woman mentioned that she and her siblings were delighted to hear of the death of their punishing uncle.

As the nieces and nephews grew older, the role of the uncle changed to that of a joking relative, which according to Radin is the typical uncle role. According to present day informants it was more than a joking relationship, since the niece or nephew could claim any of the uncle's possessions merely by stating, "This is mine." However, the uncle in return could require that his nieces and nephews perform any work for him that he wished.

One informant said that he considered his mother's brother his friend and companion and he also told a legend illustrating the traditional friendship and trust existing between uncle and nephew. In the story, the uncle was on the trail of a witch. In order that the witch not learn that the uncle was not at home, the nephew was told to lie beside his uncle's wife at night.

The joking role of the uncle is still fairly strong, as well as the right of the nieces or nephews to demand gifts and the uncle's right to demand work.

There seems to be no correlation between religious background or acculturation and the likelihood that a mother will single out a punishing uncle. This is also true of the joking relationship which is recognized by the group but practiced more by some than by others.

Aunt: There is some indication that the father's sister was not addressed by her nephews unless it was absolutely necessary, but there are not sufficient data to discuss this role except to mention the possibility of its exeistence.

Siblings. The terms for brother and sister, even to the special terms of address designating younger or older brothers and sisters, applied to full and half siblings, the mother's sister's children, the mother's brother's daughter's children, the father's brother's children, the father's sister's children. The difference in their relationship consisted in their attitudes toward other kin, not toward one another.

According to some informants, one of the most strongly

proscribed kinship behaviors was the avoidance between brothers and sisters. The basis of the proscribed behavior seems to have been to minimize friction in the household and to discourage incest where many people of the same age and both sexes were expcted to live togther.

Boys and girls played separately from "the earliest years" according to some informants, "from the time of girls' puberty," according to others. They spoke to each other in completely respectful terms and then only when necessary. Arguing and fighting between brothers and sisters was looked upon with horror and was suppressed. Looking upon the whole society it would seem that by the time the children were no longer in terror of the uncle-punisher or of punishments used on children, the boys were busy most of the time in such pursuits as hunting, fasting, and warfare. The girls were probably busy with domestic tasks or had married and moved into another home.

When a man wished to marry, he sought the approval of the girl's brother. If the brother approved of the suitor he brought the matter to the attention of his parents. If the parents were in agreement to the match they and the suitors arranged for the marriage and gift exchange. It was a cause of shame to the brother whose sister did not marry the man of his choice or if she ran off before he had arranged for or agreed to a match for her.

Men gave their war honors to their sisters.

Informants' conversations reveal that there was a studied disinterest in one another in the crowded conditions of the communal or single room lodge. Modesty was impossible to practice and so was developed by the inadvertent observer who built up a wall in his mind.

Few restraints seem to have been imposed on girls except possibly on arguing and fighting. Older sisters acted as surrogates, but to what extent cannot be determined. Folklore, which might show European influence, points to the stereotype picture of the oldest daughter in the family as being wicked, lazy, proud, cruel and sometimes a little silly. The youngest

daughter was always the opposite type of person: good, industrious, modest and kind. Such legends were recorded over one hundred years ago,[62] and are still told today.

This dichotomy of older and younger personality types is seen revealed similarly in reference to brothers in only one legend collected to date. It was learned that the institution of "brother-friend" such as is found among the Sioux had a counterpart in Winnebago society. At all events, the feeling of friendship and cameraderies among brothers was the accepted ideal, although folklore contains many stories of rivalry between brothers.

The strict avoidance between brothers and sisters began to break down earlier than in very recent times. Informants of fifty years of age and older mention that they were allowed to play and speak with their siblings of the opposite sex although they knew it was not the general practice. This may possibly be due to the fact that with the taking up of homesteads children often had no playmates but siblings. However, in one such case, a woman accepted her brother's choice of her husband against her own wishes, for not to have done so would have brought shame upon her brother.

Today, brothers and sisters often argue, and even hitting and slapping between them are not uncommon in a household. And today, the brothers and sisters considered are only true and half siblings living in a household. The old terms are known as well as the extended kin group to which they apply, but the English concept of cousin places the sense of kin tie at a greater distance in cases of classificatory siblings.

Arguments between brothers and sisters are suppressed, mainly because they are an annoyance in the household, and there are no longer formal sanctions employed to avoid disputes. Among younger children they stem from disputes over household duties and the possession of toys and other objects. Parents usually try to arrive at a fair decision in these cases, but sometimes they just ignore them. the arguments between siblings seem to develop out of a series of petty

62 Juliette Kinzie, Wau Bun (Menasha, Wisconsin: George Banta Publishing Co., 1930), p. 299.

annoyances, arising perhaps from the crowded living conditions.

Brothers and sisters do not necessarily or even usually fight but they do speak freely and jokingly with one another. This is sometimes disapproved of by older people in the community.

Today, as in the time that the people occupied wigwams, the crowded living conditions make privacy almost impossible.

The earlier-mentioned studied disinterest in one another is still a strong factor. No one is concerned if children up to four or five years of age wander naked about the house for a short time after bathing, but ordinarily children are at least partially clad. Older people tend to disapprove of nudity for any except the very smallest children. Women who live at a distance from their neighbors allow toddlers to run about nude, but other women in the community dress even their smallest children in diapers or short pants.

Siblings of the same sex and who are not separated by many years of age, tend to belong to the same informal friendship groups. In some cases brothers and sisters will team together against other siblings.

Surrogate duties seem to fall more heavily on older sisters than on older brothers, although among families of all three religious backgrounds, brothers can be found who help feed or care for younger siblings.

The breakdown of the proscribed avoidance between siblings of the opposite sex seems to coincide in time with the general change in formalized behavior between the sexes. Men and women who were strangers, or at least not kin who could converse together, were not to speak to one another. Women and girls were not to smile or laugh in the presence of a strange man. Men were told that they should turn off to the right if they met a strange woman along the same path so they would not be tempted to molest her.

The bans on conversation between the sexes began to decrease with the presence of children and young people in schools where both sexes were in class together. The increas-

ing economic dependence on whites also required that women and men speak with white people of the opposite sex in order to carry on their business. No doubt the influence of seeing white people of the opposite sex speaking freely with one another also had its effect.

Grandparents. Although Radin gives no information concerning the role of grandparents, the present writer is inclined to believe that as an individual's advancing years prohibited him or her from following strenuous tasks, the role of teacher fell to grandparents. In the old society, a morning prayer was offered by an old man. Old people were given tobacco by children and young people in exchange for being taught useful magic or to hear tribal stories, both sacred and secular. The role of story teller is still followed by old people in some families.[63] We have indicated already that the person who gave formal training to children was probably a grandparent rather than the father as Radin believes.

Both maternal and parternal grandparents figure in informants' accounts of their early lives. These grandparents were teachers, companions, and kindly friends and helpers. This is true in most cases today, and grandparents are thought of as usually very indulgent of grandchildren. Perhaps the most fortunate children in the community, from the point of view of receiving constant affection, are those who are being reared by grandparents The children are appreciated since they offer companionship to the older people, and the children feel no sibling rivalry.

Adopted relatives. This refers primarily to the adoption of children. Radin says of adoption:

> Adoption of individuals was quite frequent in former times. as far as the writer knows, however, it always took the form of replacing a deceased child by some other child physically resembling the one lost. I do not know whether there were any additional considerations if the child adopted happened to be a prisoner. As the name for adoption . . . indicates, it

63 Story telling is supposed to be done only in winter time and in some households this is a regular form of entertainment for children. Christians tend to disapprove of many stories, but old Christians will sometimes tell the "nice" ones or expurgate the "bad" ones. Graphic mention of sex and excretory functions are considered "bad" nowadays.

> is closely connected with common belief in reincarnation, meaning either the exchange of one spirit for another or the replacing of the spirit. A special feast could be given for adoption or it could be done at one of the regular feasts. As the child of the adopted was often the 'friend" of the deceased and in any case had parents living, presents were always given to his parents.[64]

According to Radin's informant:

> When a child dies, then the father mourns for many years, and if during that time he happens to meet a child that resembles his dead child he asks to be allowed to adopt him. The parents of the child can hardly object to such a request.[65]

According to present day informants, the adopted child was treated better than one's own children to show with what sincerity the child was adopted. The child was supposed to retain kinship roles both in its own and its adopted family, but usually lived most of the time with the adopted parents. Apparently the child either took the clan of his adopted parents or retained his own, since if he belonged to moth moieties he would be unable to marry.

The last case of formal adoption in the community, as far as could be determined, took place about twenty years ago, but even then the adopted girl did not quite understand what was expected of her.[66]

Although adoption is no longer formalized, or based on a belief in reincarnation, there are a large number of children in the community being reared by foster parents. These foster parents are usually grandparents of the child or the siblings of either of the child's parents. These adopted children receive the same attention and care that the foster parent's own children receive. Most such adoptions occur because the parents have separated or the mother has died. Often children are taken by foster parents as a temporary measure, but the arrangements frequently develop into permanent adoption.

64 Radin, **BAE, op cit.**, p. 139.

65 **Ibid.**

66 One informant said that during the Chicago World's Fair (1933), his younger brother was adopted by a Sioux woman and that the whole institution was little different from Winnebago adoption. Children with a white father or a father of another tribe but who lived with the Winnebago was often adopted by the mother's father so the child would have a clan.

Some bitterness surrounds the keeping of foster children since the adopting parents are accused of taking in extra children in order to be eligible to receive mother's pensions. However, such accusations seemed to be founded on spite rather than fact, because in more than one case, the foster parents have had to make sacrifices of time, energy and living space in order to care for small children after their own children had been reared.

Relatives-in-law. The uncle's role as a joking relative has been noted; however, today the strongest joking relationships are between brothers-in-law and sisters-in-law. These people are not only permitted to tease in the most personal terms, but are expected to do so.

Many women mention that their husbands sisters were unkind to them, but this apparently common antagonism between sisters-in-law cannot be considered formal kin behavior.

Traditionally fathers-in-law and daughters-in-law were not to speak with one another, nor were mothers-in-law and sons-in-law allowed to speak to one another. Just how strong this ban is now is difficult to say, for even traditionally it may only have meant not to speak unless it were necessary. This, at least, seems to be the case today.[67]

Today, people under twenty-five, particularly those not of conservative background, do not know kin terms unless they are terms for specific relatives known to the informants.

Many people are well acquainted with the terms embracing their parents and their own generation, but have difficulty in recalling terms for the descendants of their grandparents' generation.

People past sixty, who are particularly all of originally

67 An interesting note is that two conservative informants could not immediately recall the terms for parent-in-law although they were well acquainted with other extensive terminology. Neither of the informants was married, and so they may not have been familiar with the parents-in-law terms. Perhaps it was that parents-in-law were seldom addressed correctly.. The terms would be the same as the words for grandparents.

conservative backgrounds, seem to have a rapid recall of terms extending to the parents, grandparents, and sometimes even great-grandparents' generation as well as recall of terms for the offspring of the siblings of grandparents and great-grandparents. They seem to reason out terms from the system rather than as in the case of young people who think of specific relatives by which to reconstruct the system.

Data concerning kinship in the community are at this time far from complete.

Two final topics, relevent to the pre-pubertal stage and later years are induction into work, and children's play. Little traditional data exist concerning them, and most of what is here presented, particularly concerning induction into work, is inference based upon historical data and such facts as can be gleaned from the recorded fragments of life histories of old informants who have been interviewed in recent years.

Girls learned adult tasks through association with their mothers and other older women as well as through play which imitated adult life. Since a girl was considered eligible for marriage after her first menstruation, it is probable that a girl was able to carry out the adult feminine tasks of housekeeping and gardening by the time she had reached adolescence.

The tasks of the adult male were apparently less varied but more strenuous than those of the adult female, and a boy could assume an adult role only after he had practically attained adult stature and endurance. However, boys were acquainted with adult male tasks through play imitative of hunting and the warpath. Boys also hunted small game. Boys seem to have had more freedom and could roam at will, and also seem to have had fewer responsibilities and were expected to know fewer tasks than girls.

During the period of childhood, boys and girls played a number of competitive games and sports, but it is not known whether in the old society even small boys and girls did not play together. Practically nothing is known of peer groups in the old society, and most conversations with old people today

reveal that close friends in childhood were often relatives or were friends met at boarding schools.

Today girls learn adult tasks from their mothers, and by early adolescence most girls are competent housekeepers. Young girls also learn handcrafts by which they are able to earn money. Little girls also "play house" and imitate adult life.

There are no longer regular masculine tasks and boys often help with such domestic chores as hauling water, chopping wood, washing dishes and minding babies.

A number of young boys do housework, but only a few continue such work through adulthood. Men used to do some silver work, but this craft has disappeared within the last ten or twelve years. Men engage in handcraft activities to the extent of procuring and pounding the black ash logs for basket splints. Women consider this work too strenuous and if a basket maker has no man in her family to supply her with basket splints, she must pay a man to do the work. Men also carve basket handles.

Boys have less chance than girls to earn a living, unless they find work in some white industry. Today men do what little large scale planting is carried out and both men and women help in the planting of small gardens.

Crop harvesting is engaged in by both sexes, and boys and girls are encouraged to begin such work as soon as they are able to do so. Often children are allowed to keep the money they earn in this way.

Today boys and girls swim together and play group games such as hopscotch, baseball, tag, and other white games learned in school.

Siblings of both sexes play together, but most children from the age of ten or twelve years separate into peer groups based on age and sex. Boys and girls enjoy shooting with slingshots and a few play with toy bows and arrows. The writer noticed that there were very few white-made and white-style toys, even among the smallest children in the com-

munity. A very few families had a large number of books, but for the most part, books and periodicals were rare or absent in homes in the community.

The teacher at the day school did not encourage children taking home school books, since they might harm them; however, a number of children enjoyed reading and were pleased to be given books of their own.

Older boys and men as well as a few women and girls hunt small and large game with guns. This hunting is considered in the nature of a sport, but game is seldom wasted.

Separate groups of boys and girls form among the young unmarried people, but the girl's groups seem to be smaller than the boys' groups and have less of a gang nature.

Puberty to Marriage

With the inception of menstruation, a girl was recognized in the old society as an adult. Her new status was greeted with formality. Radin gives the following information concerning menstrual customs and beliefs.

"Fasting at puberty by girls was inseparably connected with their retirement to the menstrual lodges. Sometimes there was only one girl in each menstrual lodge, sometimes there were as many as three. From the time of her first menstrual flow to her climacteric a woman retired to a menstrual lodge every month for a few days."[68]

According to one of Radin's informants:

> As soon as a woman begins to have her menstrual flow she has to retire to the menstrual lodge and to be careful never to come in contact with any sacred objects. If she did, these objects would lose their power. Everything that is holy would immediately lose its power if a menstruating woman came near it. A holy woman or a holy man or even a holy child would be affected by the proximity of a menstruating woman. Their holy condition would immediately disappear. In a similar way, if food were served to a sick person from the same dish used for a menstruating woman the sick person would become far more sick.
>
> The food for a menstruating person is always cooked separately. Special dishes are used and special fireplaces are made.
>
> If a person possessed any medicines, they would lose all their power if a menstruating woman came in contact with them. If any person should enter a menstrual lodge, in after

68 Radin, **BAE, op. cit.**, p. 136.

life, whenever he fasted, he would not be blessed by any spirit. However, there is one thing that a menstruating woman is afraid of, and that is the war bundle. These war bundles are kept in cedar mixed with medicine to prevent danger from just such a source. If a menstruating woman comes near a war bundle, her flow would increase and never cease, and after a while she would die, and only the owner of the war bundle personally attends to her can she be cured. For that reason whenever a war bundle feast is being given a woman is very careful, and even if it is a few days before her menstrual flow she will not go.

The menstrual lodge is never far from the lodge in which she lives. Indeed, it is within speaking distance, so the utensils she uses are very small. The women stay from four to ten days in the menstrual lodges. The older women stay out the shorter time because they are over it sooner. . .

It is said that if the young girls have any lovers they always come to the menstrual lodges at night. This is therefore the time for wooing. It is said that the girls cohabit with their lovers in these menstrual lodges. Those girls who have parents are attended by watchers, so that no unworthy men may visit. They are especially guarded against ugly men, who are very likely to have love medicines. However, generally it is of no avail to struggle agains such men, for they are invincible.

The women always take their blanket with them when they go to the menstural lodge, for they never lie down but they remain in a sitting posture, wrapped in their blankets. The women are always watched, so tha when their menstrual flow comes everything is in readiness and lodge poles are placed around them and a lodge is erected above their heads just about large enough to fit their body. They are not permitted to look upon the daylight nor upon any individual. If they were to look upon the blue sky it would become cloudy and rain. If they looked at anyone that person would become unfortunate. For four days they do not eat or drink anything; not even water do they drink. They fast all the time.. Not even their own body do they touch with their hands. If they ever have any need of touching their own body their bones would be attacked with fever. If they were to scratch their hands their heads would ache. after the fourth day they bathe in sight of their home. Then they return to their homes and eat. (This, of course, holds only for those whose menstrual flow ceases in four days.) If any women have to stay longer than four days they have to fast for that entire period. They always fast during this period and often some spirits bless them. When a woman who has stayed in the menstrual lodge for ten days is ready to return to her lodge, she bathes herself and puts on an entirely new suit of clothes. Then her home is purified with red-cedar leaves and all the sacred bundles and medicines removed. Only then can she enter her parents' lodge. As soon as she returns to her parents' lodge after her first menstrual flow she is regarded as redy to be wooed and married. Apparently the ten day retirement was typical of only the first menstruation.

> Thus the teacher of our customs, the hare, has willed it. At a feast all the young girls nearing the age of puberty will be absent, but the old women, who have passed their climacteric, sit right next to the men, because they are considered the same as men because they have no menstrual flow any more.
>
> If the Winnebago can be said to be afraid of any one thing it is this—the menstrual flow of women—for even the spirits die of its effects.[69]

Radin mentioned the discrepancies in his data concerning menstruation, but made no effort to explain them. He noted that the menstruating women were feared, yet the menstrual lodge was a courting place. Furthermore, girls were not guarded against men generally, but against unworthy or ugly men who might have powerful love medicines.[70]

Two reasons have been given for the seemingly conflicting data. One is in keeping with Radin's statement that men who were in contact with menstruating women could not hope for success in the vision quest during fasting. The informant, a middle-aged man, said that the fear applied only to men who were engaged in fasting or who were at an age when they expected to fast for spirit blessings.

A second reason was given by a woman of seventy-five years. She said that a man might make a large show of intense fear of menstruating women in order that he would not be suspected of visiting them in case he was considered an unworthy suitor.

Radin reasons that since women often married the men who came to court them in the menstrual lodge, this was a form of marriage. Just what Radin means by this is not know, except that in connection with this remark he rejects the theory that the menstrual lodge was a carryover of an institution of women's houses.

We must infer that the house specially erected over the menstruating woman was a feature of the first menstruation;

69 **Ibid.**, pp. 136-137

70 Apparently a distinction was made between things which were holy and those which were magical, since ugly men might use magic (medicine) to court women who were mestruating, but holy things were harmed by a menstruating woman and lost their holy properties.

after that, women undoubtedly occupied any dwelling near her family's home. A sixty-three year old informant described her first menstruation and said that she had a small round hut built over her out in the woods quite a distance from her home, that she was given matches and kindling and was told how to build a small fire to keep warm. Hay was provided for her to lie upon although she could not stretch out in the small structure. Otherwise her account agrees in all particulars with that obtained by Radin. She recalled her great fear to be out in the woods alone, particularly at night when the owls hooted.

Another discrepancy in Radin's data is that in one instance he says that menstruating women were to fast, and in another place mentions that food for menstruating women was specially prepared. The explanation may lie in the following factors. Certainly the first menstruation was accompanied by fasting. According to one informant, the purpose of such fasting was for good luck, to get good husbands, and for children, so a woman might have fasted during her menses prior to the time of her marriage as well as during her first menstruation. Apparently fasting after marriage was not as important as before marriage, although a woman always retired to a separate dwelling during her menses.

We may say generally, that with the beginning of menstruation the girl was formaly recognized as ready to be wooed and married and take her place as an adult. She had been prepared for this new role long before puberty by maternal instruction in women's tasks and in the formal teachings from elders. These teachings outlined what was expected of both men and women if they were to become respected and successful people in the society.

Retirement to menstrual lodges began to diminish in the community somewhat over twenty years ago and several factors seem to have contributed to this change. First, most girls began regular school attendance even over twenty years ago, and while they may have absented themselves from day school they could not do so in a boarding school situation. Boarding schools followed the day school system for most

of the mission community at a relatively recent date. Christianity and the Peyote religion also contributed to the loss of the menstrual lodge, although some of the taboos and beliefs still remain among all members of the community regardless of religion.

In the mission community, it is mainly old people living in households where there are no girls of menstruating age who own sacred objects which might be contaminated. However, certain conservatives with young daughters are known to shunt the daughters off on non-conservative relatives when the girls are menstruating. For as long as twenty years people followed the practice of removing sacred objects rather than the menstruating women during the period that women in the family were menstruating. The belief that menstruating women were harmful to men who might or might not be seeking spirit blessings was reflected in the statement of a woman not of the community who said she did not sleep with her husband during her periods and avoided touching her husband and small son at such times.

Today the first menstruation is no longer considered in the nature of a turning point in life. Girls may be prepared for adult household tasks long before puberty, but they are not considered really eligible for marriage until they are close to twenty. Upon the inception of menstruation, conservative girls find a few restrictions placed upon their activities in the attendance of religious ceremonies, and in at least one case definitely known, on their presence in the household. However, they are not expected or obliged to fast, nor does menstruation herald the formal beginning of a courting period. Christian and Peyote girls at least know of many menstrual taboos. and some no longer fear them since they have attended feasts during their menses without ill effect.

The subject itself seems to be coming under the white influence of avoidance in conversation, but young girls and boys are aware of the facts of menstruation. Older women do not show an reticence in speaking of it objectively, although one boy of nine years was noticed to register giggling embarrasement when the subject was mentioned in his presence.

Radin has the following to say of boys' puberty:

> From the age of five, children, male and female, were taught the customs of their ancesters in a series of talks always delivered by an elderly male relative, perhaps t e father. The specific training differed, of course, for boys and girls and for individuals. Personal training ceased at the age of puberty, when all, both boys and girls, were sent out to fast. For boys this constituted the only puberty rite. After their faces had been blackened by charcoal they were sent to some neighboring hill with the injunctions not to return till dawn. Gradually they would be sent out for two, then three nights; if after that trial they were not blessed they would be advised either to desist entirely or exhorted to fast until they were blessed, no matter how long the time required to secure the desired result.[71]

While it is likely that there were many local band differences in Winnebago custom, it seems that Radin has not seen the matter in its entirety. First, children fasted before puberty, both as punishment and as ritual fasting. That ritual fasting of at least short duration was practiced by small children is brought out in a large number of recent accounts of both older male and female informants.

In connection with fasting Radin himself mentions the following:

> The young boys and girls were offered either bread or charcoal for their fast. If they took the charcoal well and good; but if they took the bread, they were unceremoniously kicked out of the house and the charcoal was thrown after them. From the other statements of this informant one might gather that the young boys and girls generally took the bread, because they would always resolve to go to the wilderness (in that way running the risk of being captured or killed by an enemy), in order to spite their parents. My informant was of the opininon that the parents purposely treated their children roughly, so that they might feel all the more miserable while fasting and thus pray all the more intensely.[72]

Just how these "young boys and girls" were, or how this fits into the picture of ritual and punishment fasting, cannot be determined at this time. Certainly the accounts of present day informants point to a consistency in the parents' attitude so that children knew when they were being punished and when their fasting was of a ritual nature. It is, however, worthy of note against future data.

71 Radin, **BAE, op. cit.**, p. 135.

72 **Ibid.**

Both in the accounts given by Radin and in those obtained recently, mention is made of Children's being expected to weep while they fasted, and in many old and modern accounts, children streaked their cheeks with saliva to simulate tears if they were not able to weep.

Radin gives no information as to the means by which a boy was considered to have entered puberty. One present day informant said that a boy's puberty was not recognized until his voice began to change.

However, actual adulthood in boys seems to have been recognized at a later date than for girls. We have mentioned that the fulfilling of adult male tasks required that the individual should have attained almost complete physical strength and maturity. Such tasks were hunting and warfare; to excel in them one wished to have spiritual blessings, or to learn medicines from those who had been blessed. Therefore, a boy fasted or was busy learning sacred lore during the years prior to his marriage. Scattered accounts indicate that boys might begin serious hunting for large game such as deer at the age of thirteen, but these accounts refer to the time when guns were in common use and hunting was not so difficult.

Boys began warfare around the age of fifteen or sixteen, but were expected to carry their "uncles' "[73] belongings, to fetch water when the group stopped to camp, and to make themselves generally useful. As they came to know the ways of the warpath and finally prove themselves warriers by the gaining of honors, they gradually came to be considered men.

The boys' vision fasting at puberty began to diminish at the time that schools and particularly boarding schools became important. According to most informants this was to be expected since fasting for visions took place in the winter time.

While hunting remained in most cases a male pusuit it has through the years become a sport rather than a necessity. The

73 That is, the mother's brothers, mother's brother's sons, or even grandsons who were older than the nephews and experienced warriors.

organized deer, bear and buffalo hunts which required large parties of people and also were preceded by rites and ceremonies and followed by formal division of the meat have been absent for many years. Radin collected accounts of Winnebago living in Nebraska in the early 1900's but even these were accounts by people who recollected earlier practices or had learned of them from their parents or grandparents.

Warfare has certainly not been followed in the traditional manner for about one hundred years, although a few skirmishes of a war nature may have occurred.[74]

However, the Winnebago have fought in white people's wars. The family name Lincoln is supposed to stem from an ancestor who took this name to commemorate his service in the American Civil War. A large number of Winnebago enlisted and fought in the first World War; many enlisted or were drafted to fight in the second World War. One account was collected concerning the interval between the two World Wars. A male informant described a mock war party which was held with all the proper ceremony, taking of an objective, and the returning with honors by the four men who had counted **coup**. The informant insisted that it was no game but a serious matter. One man who took an honor in this warfare was asked to speak at a wake.

The picture from a historical point of view seems to show little special ceremonialism or alteration in participation in the society for boys at the time of puberty except that they begin seriously to consider fasting as a means to acquire visions by which they might be warriors or doctors.[75]

The adult status roles of warrior and doctor are no longer important. As one old man said, "Their is nothing to fast

74 In the autobiography **Crashing Thunder**, mention is made of the killing of a Pottawattomie as something in the nature of a war deed rather than as a murder. Paul Radin, "Crashing Thunder" **University of California Publications in Archeology and Ethnology**, XVI (1919-1920), p. 217.

75 The term doctor seems preferable to Radin's term shaman, since in the vision quest one might be blessed by learning curative measures. Radin's term shaman implies the learning of evil magic and sleight-of-hand. **Radin, op. cit.**, Chapter X.

for any more." It did, however, exist up to twenty years ago, and the main reasons for its loss seems to have been schooling which took the children from the home, as has been indicated, and the fact that the new religions of Christianity and Peyote discouraged fasting.

Much of the formal training that children received was not only to prepare them for adulthood, but for married adulthood. Radin has the following to say concerning marriage:

> Girls were usually married as soon as they reached marriagable age, and the same was probably true of men.[76]
>
> In most cases marriage was arranged by the parents of the young people, and it rarely happened that the latter refused to abide by the decision—a fact that seems to have been due not so much to implicit obedience as to the wise precautions taken by the parents in mating their children. If, however, the young people absolutely refused to abide by the parents' choice, the latter usually yielded. In former time children were betrothed to each other at an early age. At the betrothal presents were exchanged between the parents of the prospective bride and groom. . . .
>
> Generally a man took but one wife, although he was permitted to marry more than one if he wished. In polygamous marriages the second wife was usually a neice or sister of the first wife. According to a very reliable informant it was the wife herself who often induced her husband to marry her own niece. This she did if she noticed that he was getting tired of her or losing his interest in her.
>
> There was no ceremony connected with marriage. As soon as the customary presents were exchanged, the man came to the woman's lodge and the marriage was consummated.
>
> A man generally lived with his parents-in-law during the first two years after his marriege. During these two vears he was practically the servant of his father-in-law, hunting, fishing, and performing minor services of a son-in-law as part of his marriage obligations toward his father-in-law. After the first two years he returned to his father's lodge where his seat had always been kept for him. With his own folks he stayed as long as he wished, leaving it generally as soon as he decided to live alone—a decision that was usually reached as soon as he had one child or a number of children. However, he did not always build his own lodge, especially in the olden times, when it was customary for those Winnebago who lived in permanent villages to occupy the long, gable-roofed lodges, that frequently were large

76 With the definite means of determining a girl's eligibility for marriage as opposed to the gradual attainment of adulthood for a boy, we are inclined to wonder what the Winnebago, or Radin observingthe Winnebago, considered marriageable age for men.

enough to house as many as forty people. In such cases a man and his family generally alternated between his parents-in-law and his own parents.[77]

While Radin presents a clear, quick reference summary, it appears that certain aspects bear further treatment. That marriages were arranged by parents is certainly not subject to doubt, but the present writer is inclined to believe that the brother was important as the go-between, and even as the one to suggest the match. In fact, data concerning the importance of the brother in arranging marriages was obtained from the sister of Radin's celebrated informant, Crashing Thunder. Her own marriage had been arranged by a brother (not Crashing Thunder). The traditional aspect of the matter is seen in the description given by the informant.

I didn't want to get married but once my brother was drunk and when he woke up he found this man brushing flies off him. The man wasn't such a good friend to my brother that he brushed flies off him. he knew my brother had a sister and he talked real nice to my brother and told him to speak to my folks about me, so Brother did. I cried and cried, I didn't want to get married. but my mother said it would be disrespectful to Brother if I did not marry the man he chose. They always said that when a girl ran off it was disrespect to her brother. Anyway my mother got me all dressed up and put a nice **pax ke** (binding for a single braid down the back) on my hair and she said that now I wasn't old enough to choose for myself, but when I knew about men and was older I could marry whoever I wanted if I cared to. I didn't forget that either. I didn't mind my husband. it was just living with his folks. they always found fault and tried to tell me how to raise my children. (After the birth of her second child the informant left her husband and married again. She told of winning her second husband away from his then wife. The informant remained married to her second husband until his death.)

Informants state that it was generally only the first marriage that was arranged with great formality and gift exchange and that parents tried to marry daughters to older men who were more stable, had built up good reputations, and would be able to provide well for the daughter.

While the husband's period of two years' work for his parents-in-law seems to have disappeared completely as a custom, the memory of it has not. A middle-aged male inform-

77 Radin, **BAE, op. cit.,** pp. 138-139.

ant recalled that young men were advised to marry orphans in order to avoid this obligation.

The description of courting girls in the menstrual lodge, the romanticism found in folklore and in old family histories, the presence of the lovers' flute all point to a certain amount of choice being allowed in marriage.

Both boys and girls were prepared for their roles as married adults from the time they were small children. The following is extracted from the account quoted by Radin of formal advice to daughters.

> My daughter, as you go along the path of life, always listen to your parents. Do not permit your mother to work. Attend to your father's wants. . . . all the work in the house belongs to you. . . . chop the wood, carry it home, look after the vegetables and gather them, and cook the food. When in the spring of the year you move back to your permanent settlement, plant your fields immediately. Never get lazy. Earthmaker created you for these tasks. . . .
>
> If you always fast, when you marry, even if your husband had amounted to nothing before, he will become an excellent hunter. It will be on account of your fasting that he will have changed so much. You will never fail in anything and you will always be well and happy. . . . If . . . you do not fast—when you marry he will become very weak, and this will be due to you. Finally he will get very sick. . . . do not use medicine. If you marry a man and place medicine on his head he will become very weak and will not amount to anything. It may be that you do not want your husband to leave you and this may induce you to use medicine to keep him. Do not do that, however, for it is the same as killing him. . . . If you marry a man and you want to be certain of always retaining him, work for him. . . . If you do your work to the satisfaction of your husband, he will never leave you. I say again, it is not proper to use medicine until you have passed your youth. . . .
>
> Do not use a medicine in order to marry. If you marry remain faithful to your husband. Do not act as though you were married to a number of men at the same time. . . . Lead a chaste life. If . . . you are unfaithful to your husband, all the men will jeer at you. . . .
>
> As you grow older and grow up to be a young woman, the young men will begin to court you. Never strike a man. . . it is forbidden. If you dislike a man very much, tell him gently to go away. If you . . . strike him, remember that it frequently happens that men know of medicines. . . . he may use this medicine and cause you to run away with him and become a bad woman.
>
> Do not act haughtily to your husband. Whatever he tells you to do, do it. Kindness will be returned to you if you obey your husband, for he will treat you in the same manner.

> If a wife has no real interest in her husband's welfare and possessions she will be to him no more than any other woman and the world will ridicule her. If on the other hand, you pay more attention to your husband than to your parents, your parents will leave you. Let your husband likewise take care of your parents for they depend on him. Your parents were instrumental in getting you your husband, so remember that they expect some recompense for it, as likewise for the fact that they raised you.
>
> Never . . . hurt the feelings of your relatives. If you hurt their feelings, you will cause your brothers-in-law to feel ashamed of themselves.
>
> Do not hit your relatives at any time. . . . If you were on bad terms with one of them, it may chance that he will die, and then the people will say that you are glad that he is dead. Then, indeed, you will feel sad at heart and you will think to yourself, ,'what best can I do (to make up for my conduct. . . . If you love a person and that person dies then you will have a right to mourn for him, and everyone will think that your mourning is sincere. Not only will your relatives love you, but everyone else will love you likewise. If, then, in the course of your life you come to a crisis of some kind, all these people will turn their hearts toward you. . . .
>
> In your own home the women all understand the work belonging to the household and that relating to camping and hunting. If you understand these and afterwards visit your husbands relatives, you will know what to do. . . . when you visit your husband's people do not go around with a haughty air or act as if you considered yourself far above them. Try to get them to like you. If they like you they will place you in charge of the home at which you happen to be visiting. Then your parent-in-law will tell your husband that their daughter-in-law is acting nicely to them.[78]

In Radin's account of formal training given boys, the largest share of advice concerns the obtaining of spirit blessings or the obtaining of medicines from those who had been blessed. It paints the glories of the warpath and the prestige which comes to the warrier. The ideal man was a thoroughly masculine individual, strong, a good warrior and hunter, and a generous person. Of the man's role in marriage, the following is said:

> If you fast a sufficiently large number of times, when in after life you have children and they cry for food you will be able to offer a piece of deer or moose meat without any difficulty. Your children will never be hungry. . . . Never abuse your wife. The womn are sacred. If you abuse your wife and make her life miserable, you will die early. Our grandmother, the earth, is a woman, and in mistreating your wife you will be mistreating her. . . . And as it is she that is taking care of us you will really be killing yourself by such behavior. . . .

78 **Ibid.** pp. 177-180.

> Never do anything wrong to your children. Whatever your children ask you to do, do not hesitate to do it for them. . . .
>
> If you ever get married . . . do not make an idol of your wife. The more you worship her the more she will want to be worshipped.

Here follows a lengthy description of the ridicule coming to a man who listens to his wife and does not go on the warpath. He would be given the lean meat at feasts, and finally his wife would not permit him to go to feasts at all. Continuing the narrative:

> All your relatives will scold you and your own sisters will think little of you. They will say to one another, "Let us not go over to see him. He is of no help to anyone." Finally, when you have become a real slave to your wife, she might tell you to hit your own relatives and you would do it. . . . I warn you against the words of women. Steel yourself against them. For if you do not do so you will find yourself different from other men. . . .
>
> This also will I tell you. Women can never be watched. If you try to watch them you will merely show your jealousy and your female relatives will also be jealous. After a while you will become so jealous of your wife that she will leave you and run away. . . . You, yourself will be to blame for this. You thought too much of a woman and in worshipping her you humbled yourself, and as a consequence she has been taken away from you. You are making the woman suffer and making her feel unhappy. All the women will know of this and no one will want to marry you again. Everyone will consider you a very bad man.
>
> My son, whenever people go on the warpath go along with them. It is good to die on the warpath. You may perhaps say so, because you are unhappy that your wife has left you. . . . Not for such reasons, however, must you go on the warpath. You will merely be throwing away a human life. If you want to go on the warpath, do so because you feel that you are courageous enough, not because you are unhappy at the loss of your wife. 79

Although the forgoing quotations were drawn but from the two accounts given by Radin as representative of the type of advice given, several points stand out sharply. A girl, in being taught the role of a wife, was admonished to fulfill requirement of chastity and fidelity. They are not even mentioned for boys; rather the account emphasizes that though a man need not necessarily be unfaithful to his wife, he should at least not be too devoted. In fact, as we have seen, a man might take more than one wife if he were able. The wife was abjured

79 Radin, **BAE. op. cit.** pp. 166-177.

from recourse to medicines if her husband were unfaithful, but was admonished to work harder. Furthermore, if she felt he was losing interest in her, she could suggest that he take her neice or sister as a wife.

Both Radin's data and that which was collected recently show that love medicines figure prominently in the things a man ought to learn of or at least buy for his own use and protection. A woman was admonished against the use of such medicine.

In the advice to women we see that by kindness and gentleness a woman could expect to be repaid in kind, but striking a man brought serious consequences through spite medicine. To use medicines on a man brought harm to the man and woman. A man was admonished to be kind to his wife and not abuse her since she was holy and to abuse her would bring a supernatural punishment from Grandmother Earth. However, subservience to the wife's whims brought ridicule and was also supposed to be distasteful to the wife.

Perhaps the best actual illustration of the difference in requirements of chastity and fidelity between men and women is in Radin's **Crashing Thunder.** The main character reveals himself as something of a Lothario, but at the time of his marriage, the wife chosen for him was sent back when he discovered that she was not a virgin.[80]

Informants' accounts of today vary greatly as to the frequency with which a given individual might marry. One woman of seventy-five years of age claimed that people married four, five or even six times before settling down to a permanent match. Other, deploring the frequent marriages and divorces of today, say that such was not the case in the time of their parents or grandparents. Some simply make a point of mentioning that their parents only married once and remained married to the same person.

However, we are able to deal almost solely with the ideal as set forth in the old society. There are hints that there was good reason for the ideal having been set forth so strongly,

80 Radin, **Crashing Thunder, op. cit.,** p. 406.

with deep sacred sanctions. We must exercise caution when tracng the course of acculturation, since what might be deplored today, might easily have been deplored years ago as well. The Reverend Jacob Stucki noted prior to 1900 that while women seemed to have a low status they could not be considered slaves to the husbands, and on occasion it was noted that the "wife wore the pants in the family." The Reverend Stucki also noted that wedding ties were rather loose and that couples parted frequently and remarried. Furthermore, the women might dissolve their marriages as easily as the men.

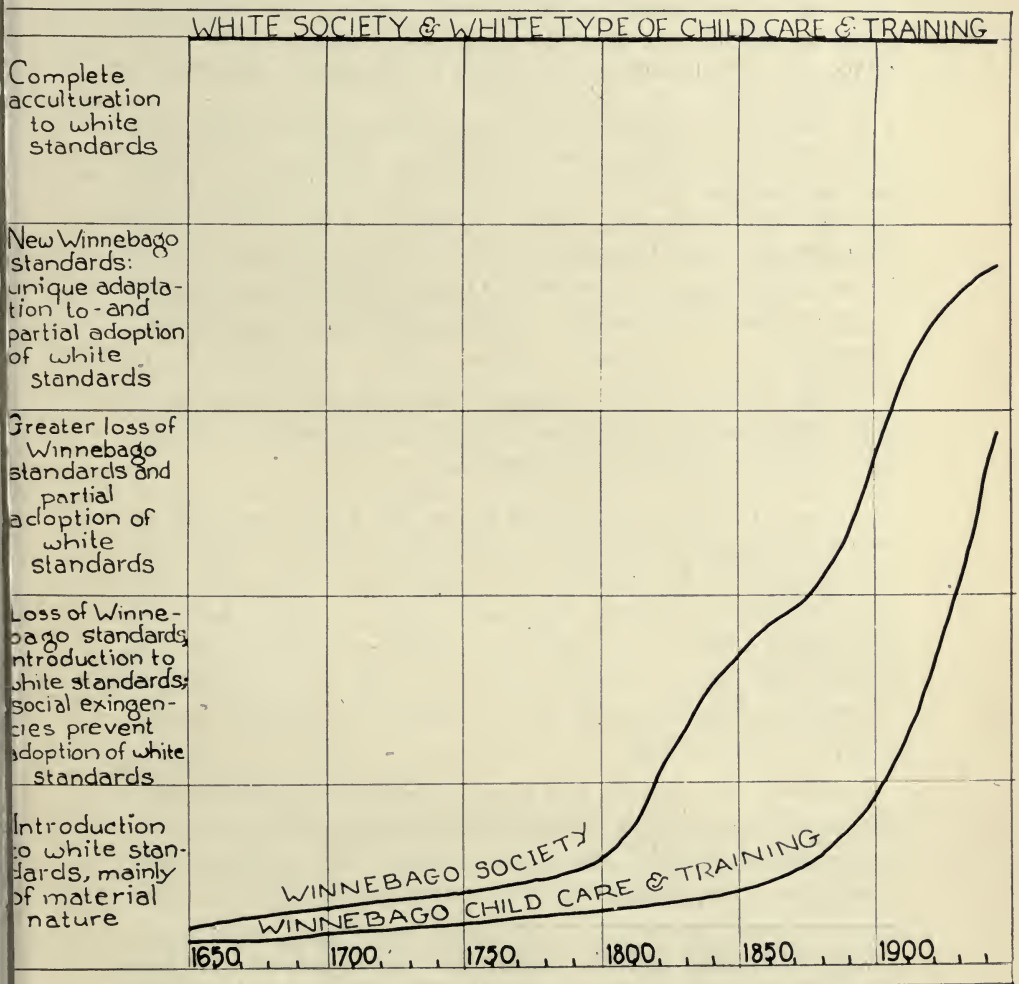
While it would appear that a man was under less obligation to be faithful than was the woman, in marriages that were lasting, a more than social and economic bond was felt even by the husband. One man was even troubled by the ghost of his first wife when he remarried some years after her death.

We have already dealt with th moiety and clan regulation of marriage and the changes noted to the present day in the section dealing with kinship.

As has been noted earlier, young people are able to speak and meet together under few restrictions. There is gossip about the activities of young unmarried people seen together, but since even simple arguments are apt to bring on side issues of accusations concerning illicit sexual relations, young people are inclined to pay little heed. Mothers are seen searching for their daughters after dark and are heard hailing deprecations not only on the daughters but on other people's daughters for leading them astray.

The gift exchanges in marriage began to show decline between twenty and thirty years ago. This may be due to the fact that ponies had come to be considered a regular marriage gift, and at the period mentioned, the Indians began exchanging their ponies for Ford cars. People apparently couldn't bring themselves to substitute cars for ponies in the gift exchange. Also, young people began to make their own matches and although token exchanges existed up to a few years ago, the need for formalized arrangements and acknowledgement of the contract between the families died out. Furthermore; the matter had gone out of the families' hands

TRENDS OF SOCIAL CHANGE IN CHILD CARE AND TRAINING AND IN THE WHOLE SOCIETY OF THE WISCONSIN WINNEBAGO



Note: *This diagram is a schematic presentation of historic trends and is not to be considered in the nature of a statistically arrived-at graph.*

Figure 4

and was important neither to the clan nor the immediate family of the couple married. It became a matter for individuals.

The group is inclined to look upon church marriages or legal ceremonies as pretentious,[81] but a distinction is made between "Indian marriages" and simple promiscuity. "Indian marriage" is common law marriage, but is recognized as real marriage if the couple sets up housekeeping in their own house or if both partners move in with one set of in-laws. Offspring are accordingly adjudged legitimate or illegitimate.

It cannot be denied that even recognized marriages are often short in duration, yet considering the ease with which marriages may be made and dissolved there is remarkable stability. For instance, children usually go with the mother who returns to her parental home, or the children can at least be assured of having a home with foster parents. Furthermore, there is little true economic interdependence to help stabilize marriage.

Going back into the parental generation as compared to the young married people of today, the incidence of divorce and remarriage seems little different.

Actual statistics are lacking since the writer encountered reluctance among the people to discuss the matter of marriage and divorce. It is doubtful if the reluctance stems from any sense of guilt or shame, but rather from the circumstances that most whites who do speak of these matters with the people are mission workers who have made little effort to conceal a disparaging attitude toward the Indians' matrimonial arrangements.

However, it is certain that even in the group of middle-aged people who have remained married for many years and have a number of children and grandchildren, their present stable marriages were preceded by one or more short-lived matches.

81 Legal marriage is also inconvenient, since divorce is frequent and not always legal. A person's first and legal spouse is given the right of inheritence of property by the government although the deceased may have been "married" to someone else for many years prior to death.

CHAPTER IV

SUMMARY AND CONCLUSIONS

In order to consider our main problem, how or whether changes in child care and training have kept pace with changes in the society as a whole, let us review briefly what the changes have been in the society and in child care and training.

From our historical base-line, the time of the first white contact, to the present, the Winnebago tribe has undergone four rather distinct phases of social change. The first is a period of about one hundred and fifty years, that is, from the middle sixteen hundreds to about eighteen hundred, during which, despite the presence of white people and their culture, the Winnebago culture itself experinced little change. The second period, from about 1820 to 1875, was an era of social disruption and disorganization, treaty signings, resettlements and introduction to the possible attainment of white goals. The third period, from which time we will consider the tribe only in terms of the groups in Wisconsin, extended from 1875 to about thirty years ago. The tribe gradually adapted itself to white means of making a livelihood, in part came to accept new religions, and not only lost a major portion of old traditions but entered a period of making readjustments and substitutions of new things for old. The last period, which we may call the present day, extends back only to the time that the new mores were definitely established in the Winnebago social order. This is also the period of major change in child care and training. However, even today the tribe cannot be considered completely adapted or reconciled to the white world surrounding it.

During the first period of white contact, the fur trade introduced a few changes in the economy whereby hunting took on a new importance as a means of supplying objects of white material culture which were becoming established as needs in many phases of every day Winnebago life. At this time the bands were still self-governed according to their own customs, the economy of hunting and gathering was still the

main source of necessities of life, and the traditional religion still flourished, although Jesuit missionaries had given the Winnebago some indication of the white religion, Christianity.

All through this same period, child care and training remained virtually unchanged. We are not prepared to deal with the psychological implications of care given the very small infant, but the general trend and orientation of such care does bear note. The child was wanted, was given constant care and affection, and was bedded on a cradle-board which was associated with feelings of pleasure and rest. Except for the abrupt weaning, little was done to displease or trouble the child. This is illustrated in that the child was allowed to make his own decisions concerning nursing, eating generally, the learning of walking and talking and of adult toilet habits of retiring from the group for excretory functions.

Even punishments of misdemeanors did not occur until a child was able to understand the reason for them. The force of punishment or even threat lay mainly in the mother's withholding her accustomed love and attention. The mother tried generally to remove any direct dislike of herself by the child being punished.

Children from the age of six years received formal lectures from some older person. These lectures were to teach the child the proper way to conduct himself as an adult, that is, how to behave in order to win approval, recognition and esteem in the group. Children learned tasks through training by adults and through imitative play.

The sense of belonging in the society was emphasized at every turn by the kinship system; membership in one's society clan and kin group. Each individual fit into an established pattern of relationships and behaviors which was designed to cut down group friction by lending cohesiveness and the security of predictability to social relationships in the group.

So far as we know, fasting became a regular part of a child's training from an early age, and at least from the time of puberty it had sacred implications as a means of obtaining

blessings to enable a person to excel in the accepted adult roles.

Among girls the first menstruation was the time at which the society formally recognized female adulthood. It was then that a girl took on new sacred responsibilities and obligations pertaining to her sex. Apparently she was skilled and competent in adult household tasks by that time, since she was then considered eligible for marriage.

Boys' adulthood was less definitely recognized, except that fasting practices during puberty heralded the means of succeeding in adult tasks which actually could not be carried out completely until a boy was practically full grown.

Marriage was a matter that was settled between the families of the couple. It was recognized by the group by the formal gift exchange. Although courtship was supervised and marriage was arranged, a certain amount of freedom of choice and consideration of the couple's interest was evident in the menstrual lodge courting practices and in the formal instruction given girls in proper behavior in a courting situation. Generally, bans were imposed on conversation between the sexes to discourage sexual promiscuity.

Girls were protected from undesirable men, but apparently worthy suitors were not discouraged in their visits to the menstrual lodge. Young boys who had not yet become established as esteemed members of th society were supposedly too concerned with fasting experiences to risk not receiving blessings by having anything to do with girls.

In short, the first period of white contact brought few changes to the society as a whole. Children were, in the main, prepared for the type of life they would actually meet. At least, their training was no more at variance with adult life than the training had been during the period when there were no white influences in the tribe.

From about 1820 the Winnebago began to see the whites as a menace. Settlements sprang up around what had been previously simple forts and trading places. The fur trade began

to fall off as a source of income, and by 1828 the Winnebago had agreed in treaties on the formal boundaries of their territory against such time that provisions would be made for the cession of their lands. The years from 1825 to 1875 embraced an era of treaty signing, removals to new lands, loss of culturally established goals, and the breakdown of the band organization. The warpath was a thing of the past except for sporadic outbursts of violence against the whites or in the taking part in the whites' Civil War. Hunting was difficult under the conditions imposed by removals and reservation life, and for the most part the Winnebago were forced to live on government provisions. At this period the tribe was introduced to farming as a substitute for the old sources of food once found in hunting and gathering. However, inexperience,, lack of tools and poor land, as well as rapid changes of residence discouraged the male Winnebago from doing any more than accept the possibility of a new role, that of farmer. In only a few cases could farming be practiced with any success.

The unity of the tribe itself was split since some people were willing to follow government rulings, but others remained in hiding in Wisconsin or returned there upon becoming discouraged with reservation life.

In Wisconsin the old roles of hunters and gatherers were still carried on. A few of the reservation children received some white education, but those in Wisconsin were for the most part without any schooling. Boys were still prepared to be warriers, hunters, and medicine men. Girls were prepared for their future roles of wives and housekeepers, and it was they who would have among their duties the greatest share of child care.

The actual adult roles were somewhat changed at least insofar as the warpath was concerned, but women's real roles remained very much the same as they had been in earlier years. Women had the care and guidance of small children in their charge and even the older children were still cared for and trained within the group.

Many of the old society regulations still existed although the

strength of the overall pattern of social organization was showing diminishment. There remained the old religion, the controls imposed by the kinship system, the police-like Bear Clan, and the several informal controls. Although the roles for which boys were prepared were no longer as real as they had been formerly, Boys were at least prepared for the fragments of traditional adult life which did exist. Despite the loss of old roles, no new roles were taken on to replace them, so that children were increasingly prepared for an adult life which was fast disappearing, but they could not be prepared for anything else since no new goals had become established.

At least for some of the group there was an actual memory of the old life-way, so that old people might carry on in the roles of teachers, but their once practical instructions were taking on the nature of education in the classics.

Even by the time the Winnebago were allowed to take up homesteads in Wisconsin, the old way of life for women persisted practically unchanged.

Homesteads introduced a new phase of social change. The Winnebago were given land with the understanding that they would settle down and become farmers, but again their poor land, their inexperience and their lack of tools led to a disinterest in farming. The Winnebago returned to their old habits of hunting and gathering. They earned some money selling wild fruits to white people. In hard times they were forced to sell the lumber on their homesteads thereby destroying the environmental source of their hunting and gathering livelihood.

White schooling, which had played very little part in the life of the Wisconsin Winnebago, began to claim more and more children. Some were sent to boarding schools; others attended day-schools; but the influence of the family remained strong despite schools. Christianity was brought to the Wisconsin Winnebago in the late 1870's but it was not until the turn of the century that it became a real threat to the traditional religion. By the late 1890's the peyote religion was introduced from Nebraska and gained a few converts; however,

the Indians in the western part of Wisconsin, who are our main concern, showed themselves to be exceedingly conservative in matters of religion.

Except for the slightly disruptive influence of white schooling, child care and training continued in a traditional manner. It had become even further removed from actuality with the growing economic reliance on farming, and particularly on the increasing trade with whites in the sale of wild foods and timber. However, the old beliefs and goals were retained as an ideal through the care and training given children.

Homesteading also had the effect of breaking down the group into small family units which meant that children played more with siblings. They had less of a sense of the importance of controls designed to govern a larger group of people than a single family, such as proscribed behaviors concerning extended kin, bans on conversation between the sexes, the clans and the general social organization which once regulated village life.

From about the time of the first World War to the present day, the most rapid changes in both the society and child care and training have occurred. In the case of the adult society as a whole, the changes have been of a positive nature. The lost goals having been replaced by new ones. In the case of child care and training, the changes are simply losses with little in the way of acceptable replacements of old methods.

The new religions, Christianity and peyote, in the community studied ,brought about a loss of the importance of menstrual lodges, vision quest fasting, and fasting generally. We also must consider that day schools and particularly boarding schools also made such practices impractical. Furthermore, the new economic dependence on whites and acceptance of white schooling tended to break down still more the bans on conversation between the sexes. The formal lectures showed an earlier diminishment than the various types of fasting since they were for children who were of an age when they began to receive formal education in school. In addition to this the lectures were designed for a way of life which was gone completely, so that even the memory of it by the few old people

was no longer sufficient stimulus to bring about its discussion. Aspects of the formal training such as hospitality and types of etiquette which remain practical are still followed and are quoted in proverbs. The kinship system, once a source of group cohesiveness, continued strongly only in the factors which provided amusement as in the joking relationship or which provided mothers with a means of removing blame from themselves as punishers. General obligation to extended kin was strengthened by the day to day economy which required a certain amount of communalism.

As the band organization disappeared and the moiety and clan were no longer emphasized in the individual's life, the arrangement of marriage passed out of the hands of the family groups and became a matter for individuals. Christian or legal marriages are still considered inconvenient due to the rapid rate of divorce and remarriage which was common apparently even in the older society when the economic interdependence of men and women began to show break-down. At the time that the traditional mores were followed, divorce was not as evident even when it did occur since the extended families remained stable.

In the last twenty-five to thirty years the Winnebago have found an acceptable economy. They have not taken up white style farming on a large scale but have established themselves in the white economy about them as a source of labor to harvest various white-grown crops.

As farming proved impractical and as people lost or left their homesteads they tended to gather in scattered communities throughout the state. These rather permanent winter settlements were vaguely reminiscent of the earlier village bands, and in the summer the people migrate and camp in groups at the various places of crop harvestings. However, the traditional band social organization is lost; people no longer have common interests in matters of government and religion Today, the cohesive forces of the tribe and small communities are a sense of kinship in minority identity and a common language, as well as a common level of living.

Crop harvesting is engaged in by both men and women, but

in recent years women have gained the upper hand in the group's economy through their special skills in handicraft which have become important with the increase in the tourist trade. Men might engage in white industries during the winter months, but handicraft remains a more certain source of income the year-round. Two World Wars have taken the Winnebago into the white world, have given them a broader knowledge of white culture and have created more white-style material desires and actual needs. In the second World War more desires and needs were obtainable since men earned regular incomes through service in the armed forces, and both men and women found well-paid employment in various war-plants.

Automobiles have put the people more in touch with white commercial centers.

However, despite handcraft work and work in white industry, women have retained their old roles of housekeepers and trainers of children.

A summary of recent and present day child care and training reveals that only within the last ten to twenty years have white obstetrical practices and ideals about post-natal care affected care and training given the infant. Today, children are still loved and their wants are indulged. The cradle-board which was given up about twenty years ago is replaced by hammocks or buggies or both. Matters of nursing schedules, weaning, and toilet training show some change, but a retention of and preference for old practices are shown. For the most part children are allowed to make their own choice concerning the time they begin walking and talking.

Pre-school children have few duties and little special training. They are no longer made to fast as punishment, but the traditional threat of owls and the uncle-punishers are empoyed. Scolding and spanking of children are becoming common but there are sentiments expressed by the group against them.

Day-school is more common than boarding school education

in the group studied so that the child remains in association with his family and tribal group in matters of informal training.

Puberty heralds no formal recognition of adulthood nor fasting for blessings. Menstrual taboos and beliefs persist in attenuated form among the religiously conservative people, and among a few peyote people and Christians.

Girls are still prepared to carry out adult tasks by the time of puberty, but due to the time spent in completing their formal education marry at a later age than they did formerly.

The male roles of farming, crop harvesting, or work in white industry are thoroughly established, but there is no formal training for them in the group nor as they involve particular in-group goals apart from a means of earning a living. The white prefessions requiring special training have become prestige goals but are followed only by a minority of Winnebago today. Any hard worker and conscientious provider is admired as long as he is not selfish with the proceeds of his labor.

Since there is no means of defining social adulthood by new tasks or physiological maturity, adolescents today gradually take on adult tasks. They are placed in a social dilemma since they are subject to group disapproval for any courting activities, but adulthood is only really accomplished with marriage. Boys who were in the service circumvented part of this difficulty since soldiery has taken on old warrior aspects as evidence of adulthood.

Young people meet and speak in the manner of white young people, but "dating" activities cause gossip and unkind specualtion by the group. Parents realize their inability to control their adolescent offspring and attempt to reconcile their failure by shifting the blame to the mission workers, liquor, and other people's children.

White education, which has some value in the following of economic pursuits, provides little social training of a nature applicable to the life peculiar to the group. The group itself

has few established social mores either of a white or Winnebago nature, and only informal controls to handle behavior concerning selfishness, fighting, drunkenness, sexual promiscuity, and general activities which produce social friction. However, the Winnebago do have a definite and recognized unity and an ethnic group with behaviors and customs peculiar to itself, and not necessarily of an old or traditional nature.

Young people tend to see advanced education or enlistment in the armed forces as a means to become trained to take a place in white society. Nevertheless, most of these young people between the ages of twenty and thirty-five years do not really break all ties with their tribal background, although they may at times engage in white industries away from their communities. They feel a need to belong to a social group, and although they are at times dissatisfied with their ethnic identity, they are not prepared to shift alone and be accepted in white society. Furthermore, they are held by bonds of friendship and affection for their families.

The present day Wisconsin Winnebago society has a certain stability in fitting into the pattern of, but not accepting completely, white society as a standard way of life. Children grow up in their Winnebago society, but are not especially prepared for adulthood in it since the goals are not clearly defined and since much of their school training is for a type of white life with which the group as a whole is not familiar.

In conclusion we see that child care and training has not kept pace with the whole changing society, nor has child care and training lagged at a uniform pace relative to changes in the whole society. Furthermore, the lag has not been the same for all aspects of child care and training. The explanation for these factors seems to lie in the happenstance that the changes affecting the whole society have had particular importance for the males: loss of prestige goals of warrior, hunter, and medicine man; changes in the formal social controls which were once mainly a male prerogative; changes in the raw materials for basic needs, once also a male concern.

Women's roles were less affected than men's roles during

the period of great social change. Women continued as housekeepers and as the ones to administer to the wants of children. Thus they unconsciously contributed to the perpetuation of old methods and ideals of child care and training. Those things which stemmed from outside the immediate home situation had an earlier effect on the older children; those factors influencing the small children were the last to show change.

As the society was going through a period of social disruption, child care and training still tended along patterns referring to the type of life with which the tribe was really familiar.

When the society came to reorganize itself along new patterns, the old methods of child care and training began to diminish, but no new or stable arrangements took their place to immediately prepare the child for the new partial-white type of life. What positive developments there are in child care and training stem mainly from the school situation which is not always applicable to the general social organization of the present day Winnebago.

In this way the most recent child care and training would seem to be ahead of the whole society in the matter of social change. However, despite our historical interests we cannot deny that child care and training are designed to prepare the individual for adult life. On the basis of the home situation, changes in child care and training still lag behind changes in the society as a whole, since home training is not completely appropriate to the adult society.

While changes in child care and training have not run a parallel course to changes in the society, they furthermore seldom concern single issues within their own confines but involve intertwined chains of events. We have kept matters of child care and training somewhat separate from general social change for the sake of clarity in presenting the data; however, the loss or breakdown of certain institutions in the society meant not only the loss of the culturally designated or recognized functions but of their secondary **raisons d'etre** as well.

When we trace down the secondary and primary aspects of institutions and their loss or change, we find that as the villages were disbanded by the removals, the formal social controls stemming from specially authorized groups lost their force.

White religion and particularly white schooling brought about the loss of not only the socio-religious obligations based on sex differences but the change of the whole marriage complex. For instance: the loss of the menstrual lodge as a courting place; the loss of the vision quest as a taboo on promiscuous sexual activities of boys and men not yet ready for marriage; the loss of conversational bans between the sexes as a chaperonage control.

Added to this was the changed economic situation which also had an effect on marriage mores while marriage continues to be the point at which adult responsibilities and status are actually assumed.

Thus we see that as the bands and extended family groups tended to form into smaller economic family units, marriage lost its secondary importance as a means of strengthening group ties. In addition to this, children from about the age of six years to about the time of puberty formerly received formal education in the home. In later years children of this age were enrolled in school. Furthermore, when the Winnebago took up homesteads, the way was prepared for the adoption of white rural-type family controls which led to the further breakdown of importance in knowing group and extended family controls. But after these controls were lost, or not familiar to children born over a period of about one generation, the Winnebago gave up farming or life on separate homesteads and tended to gather in larger groups reminiscent of the village bands. Today these modern bands are less compact geographically than formerly, but they have tended to develop a new social unity as members of a large tribe made up of many communities. However, the old type of band controls no longer exist. The tribe in Wisconsin, while more economically secure than it has been for many years, has only made an adjustment to white society as an

ethnic group within a larger whole. Its problems are comparable to immigrant ethnic groups with children being prepared for a way of life unfamiliar to the group, and the group being unable to control particularly its older children by measures within itself.

The type of child care and training which stems from the group is disorganized even in terms of its own still somewhat unsettled new adaptations to white society.

By way of illustration, figure 4 charts the course of change in child care and training as compared to the course of change within the whole society. For the purpose of graphic picturization we will assume white-type child care and training and white society generally as an end-point toward which social change is bringing the Winnebago and their methods of child care and training. The chart has no statistical validity because the various aspects of child care and training cannot be weighted against each other. We merely wish to observe the difference in pace in the whole society and in child care and training among the Wisconsin Winnebago.

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CULTURAL CHANGES AMONG THE WISCONSIN INDIAN TRIBES DURING THE FRENCH CONTACT PERIOD

John M. Douglass

The problem of determining the degree of change in the material culture of the Wisconsin Indians during the French Regime is relatively easy. Such changes were sudden and extreme, paralleling the changes in the economic life of these tribes during this period. However, the effect such contact produced upon the political structure, religion, and the social and psychological aspects of the Indian society must in many respects remain hypothetical. Too little is known of these aspects prior to white contact, and information during the contact period is incomplete and not always reliable in these respects.

It is the intent here to show the effect, both direct and indirect, upon the culture and economy of the historic Indian tribes of what is now Wisconsin. In this necessarily brief survey of the problem, no attempt will be made to study cultural changes tribe by tribe, but rather the subject will be considered on the basis of the effect French contact had on the Wisconsin Indians in general. Hence such broad phases of the problem as can be treated in this fashion will be the particular concern of this study.

The terms "culture" and "civilization," which will be used repeatedly, are used in the anthropological sense and are excellently defined in the recent publication "Indians Before Columbus" (Martin, Quimby, and Collier, p 5).

"The word 'culture' as used by anthropologists does not mean the improvement and refinement of the mind, an action which implies a conscious, voluntary effort. Culture in an

anthropological sense embraces the sum total of human behavior and activities which are handed on by precept, imitation, and social heritage. This includes all customs, habits, usages, attitudes, beliefs, religious and political ideas, and material products, such as methods of building houses, of manufacturing all kinds of artifacts (weapons, pottery, ornaments, baskets, cloth), of planting and harvesting.

"When a culture becomes complex and advanced, especially in a material way, it is customary to refer to it as a 'civilization' (e.g. the Maya Civilization); but in reality, culture covers all the elements of civilization and does not necessarily connote any degree unless the term 'high' or 'advanced' is used."

In order to analyze the culture of the Wisconsin Indians as it was before white contact, we must rely upon the information furnished us by such sources as the "Jesuit Relations" and other early documents giving the account of visits to to Indian tribes by early French priests, soldiers, traders, and adventurers. These are by far the most important sources for such information since archeology has as yet succeeded in tying in known archeological facts with definite Wisconsin historic tribes only to a very limited degree. The early documents themselves are scanty and leave much to be desired in their descriptions of the life and habits of the Wisconsin aborigines.

In addition to these difficulties, the endeavor to discover the exact living habits of these people before European contact affected their culture is further frustrated by the fact that the Wisconsin Indian tribes probably adopted some phases of the white man's culture a considerable time before the first white man arrived in what is now Wisconsin. Europeans had been firmly entrenched in America some hundred odd years before Nicolet, the first known European to visit Wisconsin, arrived in Green Bay in 1634. The French in the St. Lawrence Valley, the English and Dutch on the east coast, and the Spanish in the Southwest profoundly affected the culture of the immediate tribes with whom they came in contact. These tribes in turn must have affected cultural changes through the medium of trade, and even of warfare

upon tribes far into the interior of the continent. The extent of such indirect contacts probably never will be known.

Despite these difficulties it is possible to recognize many aspects of Wisconsin Indian culture as being definitely their own and totally unaffected by any white influence.

Before considering the acculturation of the historic Wisconsin tribes in the French Regime, we must know something about their living habits before French contact, and more specifically with what groups we are concerned.

These early aborigines of what is now Wisconsin were all Woodland people having a generally similar culture. Most of them did some gardening, and can be regarded as a semi-sedentary people, but all of them relied primarily upon hunting, fishing, and other forms of food gathering for their principal sources of food supply. They moved from place to place with the seasons, seeking favorable hunting grounds, a good source of water supply, soil favorable to their garden crops, and places where various wild vegetable foods were available.

Corn, squash, beans, and tobacco were the principal crops of most of the tribes. The gardens were small, and the plants were cultvated either in rows or in a series of small hillocks. In the latter instance the seeds were probably planted with a digging stick and then the dirt was heaped over them to form a small mound.

For meat, the Indian depended on wild game, which was very abundant, and fish. Such animals as deer, buffalo, moose, bear, elk, woodland caribou, antelope, and small game not only furnished food for the Wisconsin tribes, but also provided skins for clothing, such as moccasins, legging, shirts, and breechclouts. Animal bone served for making various implements such as awls, and the tendons and sinews were utilized for sewing, wrapping, and making cords. Buffalo hair was often used for weaving belts and sashes. The family larder was augmented by such natural products as various wild roots, berries, nuts, wild rice, and maple sugar.

The usual house type was a wigwam covered with bark and cattails. Birchbark was also utilized by some tribes for the making of canoes, although most prairie tribes depended on dugouts made of hollowed-out logs.

Vessels were made from pottery, bark, and wood. Eating implements were made from shell, wood, bark, and gourds. Other commonly used articles were fire drills, chipped-stone drills, mortars and grinders, tobacco pipes, skin pouches and bags, woven bags, baskets, ropes and twines, nets, animal-hair belts and sashes, quill work, ornamented skin and birch bark articles, and painted hides.

Weapons were made of chipped and of chipped and polished stone. These included knives, points, and axes. Projectile points were also made of antler and bone. Bows and arrows, knives, axes, and spears were the chief weapons used.

Contrary to popular opinion labor was rather evenly divided between the sexes. Felix M. Keesing (page 33) lists the occupations for men and women commonly followed by the Woodland tribes.

"Men—hunt and fish; conduct warfare; perform tribal, family, and individual ceremonies in order to ensure cooperation of the spirit powers; prepare sacred artifacts; manufacture canoes, weapons, tools, nets, snares, wood bowls; cut and chop wood.

"Women—cook; conduct the household and rear children; do all agricultural work; collect berries and wild foods; gather firewood; carry water; carry goods when travelling, such as the mats for the lodge; dress skins, make clothing, weave mats and bags, and prepare household utensils."

Government, such as we know it, was little known among the early Woodland tribes. The chiefs relied primarily upon the prestige they gained through military exploits, upon their own personal influence or upon the veneration the Indians had for old age in order to exercise any real power. Kinietz (page 355) quoting Raudot, says substantially that the government of the "savages" was essentially republican with the elders regulating all of the affairs and the young people executing them. Among the elders were the war chiefs who became such by outstanding feats of arms and by the friendship of the young people to whom they gave to many gifts as to render themselves the "most poorly dressed of the nation."

A tribe was divided into either gentes or clans, depending upon whether the tribe traced its blood relationship through

the male or the female line. If the gentes were the tribal divisions the descent was through the father's side of the family, and the clans indicated blood relationship through the mother's line. All of the Algonkian peoples were patrilinear, as were the Santee Sioux and the Winnebago. Only the Huron, of all the Wisconsin tribes in the French period, were matrilinear, or traced their descent through the female parent.

The religion of the Wisconsin Indians centered about belief in spirits who controlled natural phenomena such as the winds, sun and moon, seasons, etc. Much ritual and ceremony were associated with seasonal occurances, such as the harvest dances. Events in individuals' lives, such as birth, death, vision quest upon reaching manhood, and becoming a warrior, also were important. In the instance of religion, as in many other aspects of Indian life before white contact, we must turn to early documents such as the "Jesuit Relations," and our information is inaccurate and very incomplete.

Kinietz (p. 284-5) expresses the difficulties excellently in this respect. "A number of factors prevent one from obtaining a clear picture of the religion of the Indians of the contact period. Of these, three stand forth as very important. First was the inability of the Indians to make the white visitors understand their belief in this universal power, which belief existed as a feeling rather than a formalized creed. Second, the majority of the Indians may not have distinguished between objects as manifestations of universal force and as individuals forces, particularly the Indians who were apt to serve as informants, for undoubtedly the best informed persons were the old men or shamans, who might be called the priests. These would have been the last persons in a community whose confidence would have been engaged by Europeans, especially the missionaries. Third, was the religious bias of the writers, most of whom were missionaries, who did not believe the Indians could possess a knowledge of a true god or that any religion other than their own could be anything except paganism."

The most convenient way to classify the historic Wisconsin tribes is by their basic language divisions. These were

Algonkian, Siouxan and Iroquoian. Except for the Santee Sioux and Winnebago who were Siouan speaking people, and the Huron who belonged to the Iroquoian linguistic group, the Wisconsin tribes spoke languages belonging to the Algonkian stock.

Wisconsin history began with the arrival of Nocolet, probably at Red Banks, near Green Bay, in 1634. At this time only three tribes are definitely known to have resided in Wisconsin. These were the Menomini, the Santee Sioux, and the Winnebago.

Despite some claims, no definite proof exists that Nicolet visited the Potowatomi and Mascouten in what is now Wisconsin. It is probable that these two tribes were then residing near the east shores of Lake Michigan.

About 1640 a number of refugee tribes fleeing the invading Iroquois, and possibly attacks by the Neutrals and Tobacco Nation, came into the Wisconsin area in considerable numbers. These refugee tribes included the Mascouten, Potowatomi, Fox, Sauk, Miami, Chippewa, Kickapoo, and possibly the Illinois. With exception of the Chippewa, these tribes settled in, or near, the Fox river valley early in the French Period. The population soon became too dense to be supported by the natural resources of the region, particularly the greatly accelerated tempo of hunting and trapping induced by the fur trade.

Most of the Kickapoo and Mascouten, and many of the Potowatomi had travelled eastward and southward out of Wisconsin before the end of the French Regime. Most of the Sauk and Fox also left due to their war with, and defeat by the French, although some came back about 1740 following a change in French policy toward these Indians. The Indians mentioned above are principal tribes concerned in this report with respect to acculturation during the French period.

Three types of contact between the French and the Indians can readily be see. These are the associations with the Indians by the French priests, soldiers, and traders.

Permanent influence by the Jesuits upon the Indians was almost negligible. In general, the Indian tribes were resistant to the white man's religion, most of those baptized

being the children, the sick, and the dying. The Wisconsin tribes, highly warlike, presented a different problem than the relatively docile natives of Central and South America who were accustomed to obedience to both a civil and a religious authority long before the Spanish Conquest. Humility, obedience, and weakness were repugnant to the Woodland Indian who regarded the ability to kill one's enemy efficiently as one of the greatest virtues.

The priests were not interested in "civilizing" the Wisconsin Indians. In fact, they regarded the contacts between the Indians and the fur traders as having a demoralizing influence upon their charges, not without justification. The Jesuits desired to see these simple people maintained in their original ignorance except for their belief in the "One True God," and such simple advancements in agriculture and other techniques as would improve their lot as mission Indians. Failure in this aim was furthered by the French Government and military in New France which distrusted and was opposed to Jesuit policy.

Reports indicate that many tribes feared and respected the "Black Robes" and undoubtedly regarded them as medicine men, or shamans, but apparently the priests neither desired nor secured the feeling of comradeship with the Indians that was achieved by the fur traders. In addition to these factors, the Jesuit missions were abandoned during the Fox wars, in the first half of the 18th century, and missionary activities were not resumed by the Catholics for almost a hundred years. Had the Jesuits remained with the tribes, the story might be different since later missions had some success; however, native resistance plus the abandonment of the missionary effort meant that most of the results of Jesuit activity among the Wisconsin Indians was completely lost.

The influence of the soldier upon the culture of the Indian is also difficult to evaluate. Military officials were able to sway the tribes to the extent of gaining their aid as allies in warfare against mutual enemies. The military failed completely in an effort to regiment Indians and drill them as soldiers; it was too foreign to the Indian tradition of making war. Claims that the so-called military stripe on the leggings,

or the military epaulette on the shoulders of Indian costumes were Indian copies of European equipment is improbable. Other students of the subject believe the legging stripe to be a functional device to hide the seam, and the epaulette to be also functional in purpose and used possibly as a strap for a bandolier. The introduction of stockaded forts by the French military may have inspired Indian fort building in some instances; however, contact with the Huron, or other Iroquoian peoples who also built stockaded villages, may have been the more important factor. Archeologists have determined that there were stockades in Wisconsin before the white man came.

The French fur-traders were undoubtedly the most important factor in the introduction of new materials and new techniques to the Woodland tribes. Material culture change due to trade items of European manufacture was the most obvious evolution in Indian traditions. Pottery making and stone working were abandoned as rapidly as the tribes were enabled to obtain the superior metal cooking utensils, guns, knives, axes, and other useful items offered by the trader.

The rapidly expanding desire on the part of the Indian for trade articles, plus the eagerness of the French trader for the furs secured by the Indians, formed the basis for an understanding equally satifactory to both white and red participants. The white man's need for the Indian's furs was balanced by the Indian's need for the goods the French made available to him. This change in material economy was so complete that within a generation or two knowledge of stone chipping and pottery making was almost completely lost. This abandonment of primitive implements is well ilustrated in the following quotation from a speech made by Nicholas Perrot (Wis. His. Col., Vol XVI, p. 159) to the Wisconsin Indians about 1690. "You have forgotten that your Ancestors in former days used earthen Pots, stone Hatchets and Knives, and Bow; and you will be obliged to use them again, if Onontio abandons you."

Early French documents provide a source for lists of articles traded with the Indians by the French, or given by

them to the Indians as presents. The following quotations are rather typical of such lists.

In a letter written by Duluth (Wis. His. Col., Vol. XVI, p. 124) at "Mischilimakinac," April 12, 1864, the following presents are listed: ". . . blankets, guns, powder, lead, mitasses (leggings), tobacco, axes, knives, twine for making a beaver net, shirts, and two sacks of wheat to keep them until they could kill some game." Lahonton, (page 377) also listed "Goods that are proper for the Savages, . . . Short and light Fusees, Powder, Ball and cut Lead, or Small shot. Axes both great and small. Knives with their Sheaths. Sword blades to make Darts of. Kettles of all sizes. Shoemakers Awls. Fish-hooks, of all sizes. Flint Stones. Caps of blew Serge. Shirts made of the common Brittany Linnen. Woolsted Stockins, short and coarse. Brazil Tobacco. Coarse white Thread for Nets. Sewing thread of several colours. Packthread. Vermillion. Needles, both large and small. Venice beads. Small Iron Heads for Arrows, but few of 'em. A small quantity of Soap. A few Sabres of Cutlasses. Brandy goes off incomparably well."

To this list might be added looking glasses, combs, pipes, fire-steel and fiint, paints of various colors, and cloth and ribbons.

The economic adjustments required by the Wisconsin tribes after receiving trade goods from the French, as well as the adaptations needed to accomodate the fur-trade itself, must in many respects be estimated. Any changes in any aspect of the culture of a people must affect the entire cultural pattern of the group even if only to a very minor degree.

Abandonment of native techniques and the substitution of foreign ones resulted in new situations which required readjustments by the members of the society. For example, iron and copper cooking utensils surplanted pottery vessels. Thus the women were no longer required to manufacture pottery and could devote this additional liesure time to something else. In addition to this, the more expert potters of a community must have lost prestige when the product of their skill ceased to have any importance. They would

be required to maintain their prestige by adapting themselves to new techniques ushered in by the white man's civilization. The changes in material culture made many such readjustments necessary within the tribe. The expert archer was required to duplicate his skill with the gun in order to maintain his leadership as a warrior or hunter; and the stoneworker, and many others skilled in particular crafts felt the impact of the change.

Thus the importation of European products, in addition to adding to the material comforts and wealth of the Indian, must have resulted in some friction within the tribes and created some frustrations due to the readjustments necessary. Dissension may also have occurred between conservative members of the group who did not desire to accept "new fangled ideas" and those anxious to obtain the new article.

The white man's goods were sometimes adopted by the Indian to uses foreign to their original purposes. Kettles, after becoming worthless as vessels, could be broken up to make weapons and ornaments. Thimbles served for decoration, and coins were more important for their ornamental value than as money.

The change in Indian economy induced by the introduction of the fur trade was as drastic and as sudden as its impact upon their material culture. The Indian, spurred by his anxiety to obtain French trade goods concentrated on trapping to obtain pelts for a rapidly expanding French market. As early as 1668, Perrot, and other traders with him, had brought furs to La Baye (Green Bay). Great activity in the fur trade was quick to follow with the French traders using guns and brandy as an inducement to increasing the tempo of fur trapping by the Indians. This, in effect, resulted in the employment of the tribesmen as trappers by the French, and the payment for their employment was the material obtained by barter with the traders.

In order to engage in barter with the French, it was necessary for the Indians to journey to the fur-trading posts. Thus in certain seasons a concentration of various tribes about these posts was inevitable. Indian tribes were exposed to more frequent contact with one another at these times, and some interchange of cultural traits was thus indirectly

effected by the fur trade itself, although the intensity of this mutual interchange of ideas would be difficult to assess.

In addition to this seasonal concentration about the posts, a deliberate policy of concentration of tribes about the forts was inaugurated. According to Kellogg (p257), this was the direct result of a royal edict issued by the French king, May 21, 1696. According to the terms of this edict all fur trade licenses were revoked, and all colonials were prohibited from carying goods to the western country. Two main causes for the issuance of the edict might be noted: first, a slump in the beaver market, caused by the great flood of furs into France and a decline in beaver hat production due partly to the emigration of the Hugenots, who were the main hat felters;; second, the Jesuits, incensed by the sale of brandy to the Indians by the traders and soldiers, were able to influence the king to ban the fur trade.

Due to the withdrawal of the western posts, and to the prohibition of the fur trade, an attempt was made to concentrate the tribes about three main posts. These were Detroit, Chicago, and New Orleans. At these posts, the Indians were to be indoctrinated into the white man's civilization and eventually included in the economy.

This policy of civilizing the Indians was a failure. Not all the tribes came to the forts to settle, and those that did failed to see any advantage in the European mode of life. It did, however, bring a number of tribes into relatively close contact and possibly resulted in some cultural diffusion.

The most marked result of the French concentration policy was the friction which resulted in the bringing together of tribes which were hereditary enemies. At Detroit, the Fox and Mascouten fell at odds with the Huron and Ottawa. The French sided with the enemies of the Fox and precipitated the long and bitter Fox Wars. This warfare had profound political repercussions upon most of the tribes in central Wisconsin from 1712 to 1730, and eventually resulted in the merging of the Fox and Sauk into one political unit.

The tribes which did not accept the invitation to reside about the posts failed to journey to them seasonally with their articles for barter as had been expected. These tribes were cut off from their source of supply of French trade

goods to which they had become accustomed. The result was some distress, and a considerable hostility to the French because of the ban on the fur trade. An illustration of this is an excerpt from a speech made by Onanguisset, Chief of the Potowatomis, at Montreal in 1697, as quoted in the Wisconsin Historical Collections, Vol. XVI, p. 169. "Father! Since we want powder, iron, and every other necessary which you formerly were in the habit of sending us, what do you expect us to do? Are the majority of our women, who have but one or two beavers, to send to Montreal to procure their little supplies,—are they to entrust them to drunken fellows who will drink them and bring nothing back? Thus, having in our country none of the articles we require and which you, last year, promised we would be furnished, with, and not want; and perceiving only this—that nothing whatsoever is brought to us, and that the French come to visit us no more—you shall never see us again, I promise you, if the French quit us; this, Father, is the last time we shall come to talk with you."

The Wisconsin tribes had come to depend on trade goods to the extent that the shutting off of this supply by the French king seriously affected their economy. Lack of gunpowder and lead restricted their hunting operations as well as reduced their alibity to cope with hostile tribes, such as the Iroquois who were well supplied with guns by the English traders. The Indians were becoming increasingly dependent upon the French to such an extent that they had lost much of the freedom they had enjoyed as a self-sufficient people.

Despite the ban on the fur trade, many coureurs de bois were illegally trading with the Indians so that some trade goods were getting through to the tribes during this short period. About 1716, many unlicensed traders were pardoned and the concentration policy abandoned as a failure. The old posts were reoccupied by military garrisons, and the fur trade was resumed.

Wisconsin Indian costume saw some innovations after white contact. Trade beads gradually replaced porcupine quill as a decorative medium, cloth served as well as skins for clothing, and cloth applique developed as a new technique

in costume decoration. A number of early French lists of trade materials mention shirts, hats, chemises, stockings, military coats, etc., which indicated that, at least on ceremonial occasions, such European costume was utilized by the Indian.

The extent to which Indian art was influence by European concepts during the French Regime is also speculative. In the British period military designs were incorporated into Woodland beadwork, but French influence is not so clearly shown. The origin of floral designs in Woodland Indian art has been a controversial topic for a considerable time. Some believe this motif was the result of Europeaninfluence; others, however, regard such floral patterns as a probable Indian invention. Mr. Milford G. Chandler, who is well known as a student of Indian costume and decoration, supports this latter viewpoint. In this respect he made the following statement. "Curvilinear designs are, in my opinion, of aboriginal origin, and the gradual transition to more realistic floral patterns could be traced to more recent European contact. The more or less balanced arrangement, including the double curved motif, is a feature which is widely prevalent but not absolutely a universal characteristic of curvilinear work. This characteristic is one I would use in determining the tribal origin of the work. Conventionalized floral designs are probably aboriginal in origin. The use in some cases of geometric or curvilinear design depends on the medium of expression, or the technique used. Thus, in some cases, the technique restricted them to geometric forms."

The invention of the so called "tailored" garments of the Woodland tribes has also been denied the Indian by some students; however, the sewn garments of the Eskimo were undoubtedly in use before European contact. Moreover, the distribution of the "tailored" clothing of the Indian indicates an Asiatic rather than a European origin for the typical Woodland Indian costume.

With respect to changes in the diet of the Indian during the French Regime, apparently the use of French food products transported into the region to augment the Indian's food supply and enable him to spend more time on the

obtaning of furs, and the use of military food supplies by the tribes during campaigns with the French soldiers, were more important than any agricultural innovations induced by French contact. Actually the early French explorers lived pretty much like the Indians. The Indians' contributions to the diet of the French were greater than any received by them.

One of the most unfortunate results of early white contact with the Indians was the introduction of alcohol as a trade item. The desire of most Indians for brandy was so great that many unscrupulous traders employed it as an inducement to the Indians to bring their furs to them. This trade in brandy was one of the major causes of Jesuit antagonism to the military authorities as well as the traders. Military commanders often controlled trading districts and in many instances were personally responsible for such traffic despite the fact that the sale of brandy was prohibited. Specific mention of the French king's ban on brandy is made in a letter written at Versailles, June 30, 1707, to Sieur Daigremont, subdelegate of Sieur Raudot, Intendant of New France, as recorded in the Wisconsin Historical Collections, Vol. XVI, p. 245. The particular officer involved was Sieur de la Motte Cadillac, who was commandant at Detroit. "Mesrs. Vaudreuil and Raudot write conjointly that, if there be any abuse in the sale of Brandy among the Indians, it can only proceed from Sieur de la Motte who carried with him some 15 barrels of it, and a large quantity of powder. They likewise Observe to me that his agent at Quebeck has written to him who is at Montreal, to give clearance to all the canoes who would go up to Detroit on condition of carrying thither 300 livres' weight in Brandy to Sieur de la Motte; and that, finally, it appeared to them that Sieur de la Motte had a desire to trade, because he carried only Brandy and powder. As his Majesty wishes absolutely to enforce the prohibition he has issued against carrying on any trade in Brandy with the Indians, he orders Sieur d'Aigremont to verify very precisely the quantity of liquor Sieur de la Motte has carried up, and inform himself what use he made of it. This is the principal motive that induced his Majesty to send to Detroit. Therefore, he must direct all his attention

to thoroughly clear up the fact, and to report fully thereupon."

Early French documents often remark on the absence of violence or crime within a tribe except during one of the numerous drinking bouts. Strangely enough, an Indian who committed an act which ordinarily would bring reprisals was usually excused by his fellows if such a happening occurred while the perpetrator was intoxicated. Raudot, in 1709, offered this information in this respect (Kinietz, p. 344), "They (The Indians) are naturally very much inclined to drink and become intoxicated because at this time they believe everything permitted. They are so well persuaded of this that should a drunken man break their canoes and everything that is in their cabins, they do not get angry, and, laughing, say 'he has no sense'; they also use this term when they see someone in a passion; the majority of them never get that way and are always calm; they certainly lose this calmness, however, when they are drunk, for they stab one another, bite noses and ears, throw their children in the fire, and do all the mischief of which a man furious and mad could be capable."

Louvigny, (Wis. His. Col., Vol. XVI, p. 388), in 1720, gave a slightly different version.

"The trade in brandy, which My Lords absolutely prohibit, is the cause of all the troubles among the Savages, among whom there are no laws, and no punishments beyond the will to do harm.

"The Savages no longer Think of hunting in order to Clothe Themselves but only to get drink. Brandy is making them poor and miserable; sickness is killing them off; and they slay one another on very slight provocation, and without any penalty for the murderer except the risk of meeting the same fate. Through this fear, they disband and quit their villages to settle elsewhere in families, for fear of being killed by the relatives of those whom they have slain. They no longer recognize any chiefs, or any subordination; and they are all Furious and frantic in their intoxication, since when they cannot stab one another, and when their weapons have been taken from them, they bite off one another's ears and noses. Such, My Lords, is a Picture of the effects of brandy among them, whence it is easy to judge how

little order or reason there is among a people who are in a state of perpetual intoxication."

The cause for such a complete passion for drinking that the American Indian possesses has been considered by many writers, but seems to be a very complex problem. The possible use by present day Indians as an escape medium would not necessarily apply in the early contact period, yet the need for prohibition, or control of the liquor traffic among the Indians became apparent almost with the very beginning of Indian and European contact. Ruth Benedict (p. 87) attempts to tie in the drastic attempts of all North American tribes except the Pueblos, to seek the vision dream, as a means of acquiring supernatural power as a contributing factor to the alcoholic craving among all tribes, other than the Pueblos, where is has never been a serious problem. Some Indians in Mexico and parts of the Southwest used alcohol before white contact for this purpose. Other groups used the frenzy of the dance, torture, or fasting to produce the necessary trance like state of auto-hypnosis needed for dreams or visions. Such an emotional pattern might have been conducive to heavy drinking and when the opportunity was offered by the white trader of reaching such a state quickly and easily the stage had already been set for the acceptance of alcohol into their culture.

There is no doubt that alcohol came to have a ceremonial significance among the Woodland tribes very early, and still does today. Kinietz (p. 307) quotes a statement made in 1730 by Pierre Noyan regarding shamanistic use of alcohol: "Generally all savages drink to intoxicate themselves; and when they have been drinking, these tribes, who are so orderly and peaceful, delight in nothing but vengeance and murder. Yet how deprive them of it entirely? It has become the basis of their religion! These superstitious men can no longer recover from their diseases, unless they make festivals with brandy; their sorcerers or jugglers know no other remedy. They must have it at whatever cost; and it appears to me that it will be most difficult to forbid them the use of it altogether."

Such religious significance that alcohol came to have

among the Indians could hardly be a major cause, however, in inducing the desire for drink so prevalent among these people. A number of other suggestions have been made such as vitamin deficiency, and culturally induced repression of agression within the group, for which alcohol offered an acceptable release. This latter theory would tend to be confirmed by remarks already quoted in this article regarding the overlooking of violent acts by a person intoxicated. That they deliberately became drunk in order to commit acts of aggression might be the mistaken conclusion of the observer; However, the same traditional repression of violence within the group, except when an individual is intoxixcated, is still characteristic of modern Wisconsin tribes. This habit pattern seems to be so strong as to render an individual incapable of direct aggression against another tribal member. Robert Ritzenthaler, Curator of Anthropology at the Milwaukee Public Museum, had the following to offer in this regard. "I have never seen any Wisconsin Indians fighting except when under the influence of alcohol. Except in war, their traditional release of aggression was an indirect one. Vengeance against personal enemies was accomplished through the indirect medium of gossip or shamanism rather than face-to-face encounter.

The liquor problem among the Indians has never ceased to be a source of concern. Even at the present time the United States forbids the sale of liquor to any Indian under the guardianship of the federal government.

Drunkenness was not the only misfortune introduced to the Indians by the first white visitors. European diseases accompanied the early explorers and afflicted the Indian with disastrous effect. The native Americans had little resistance to newly introduced disease germs to which they had had no opportunity to build up even partial immunity.

Small pox appears to be the first disease to strike the Indian during the early contact period. Speaking for the Indian in general, Stearn (p. 13) states, "Small-pox, which was introduced into the mainland of the Americas in the early part of the Sixteenth Century . . . decimated the native populations for four centuries . . . . Small pox killed

more Indians in the early centuries than did any other single disease." More specifically applying to the Wisconsin area, Stearn (p.24) remarks, "During the period between the years 1633 and 1641 there seems to have been an almost unbroken series of smallpox epidemics through the Great Lake-St. Lawrence region."

Smallpox appears to be the only disease introduced by the Europeans which reached epidemic stages during the French Regime. Undoubtedly other diseases were introduced which played a minor role, but little mention is made of any such in early French documents. Whether or not venereal disease occurred in America in pre-Columbian times is still controversial, but there is no evidence of its occurance in our Woodland before white contacts were established.

Apparently no great change took place in the general political structure of the various Wisconsin tribes during the French period. However, some tendencies towards greater power by the chiefs might be indicated indirectly by the various events related in documentary sources. For example, the Indians serving as allies of the French on distant campaigns against mutual enemies tended to maintain war parties for longer periods than had formerly been customary. This possibly served to strengthen the authority of the war chiefs. Also, the need of chiefs to represent their tribes in treaties with the French, and the prestige successful negotiations tended to give such chiefs must have strengthened their power. The Fox War produced an exceptional leader in Kiala, Chief of the Fox, who actually succeeded in organizing a confederacy of tribes as far west as the Misouri, and as far east as the Seneca, in an unsuccessful league against the white invader.

The French, too, gave more elaborate gifts to chiefs whose friendship they desired. Military uniforms, plumed hats, and coats, which all symbolized rank, were often presented to Indian war chiefs and possibly increased their prestige with their own people. Shipments of such material are listed in early French documents. The effect of all such factors on the political power of the Indian leaders must, of course, remain largely hypothetical. Certainly it is true that the Indian leaders, desirous of preventing brandy drinking

among their people, were usually powerless to prevent it. Thus their authority never tended to become absolute.

In regard to other aspects of French contact upon Indian society, the effect of marriages of French men and Indian women might be mentioned. All the Wisconsin tribes during t' e French Regime, except the Huron, whose stay in Wisconsin was very brief, had a patrilinear system. The child, who normally belonged to his father's gens, had no gens to belong to if his father were French. A readjustment had to be made to meet this new situation. Sometimes the child was adopted into his mother's brother's gens. In some instances the tendency was toward a weakening of the old kinship structure.

The increased contacts of the period made it also necessary for the Indian to learn the language of the trader in some instances, at least, and to tend to develop a "lingua franca" for the area to meet the need for greater intercommunications between the Wisconsin tribes as well at between the Indians and the French. Since the Chippewa were among the first of the tribes which resided in Wisconsin during the French regime to be visited by the French, their language tended to serve the common need for the area.

Many other aspects of Indian cultural changes during the French Regime could undoubtedly be made, and a much more detailed study of the various phases of acculturation could be done than was intended in this brief introduction to the problem. Nevertheless, certain generalized conclusions are possible.

The fur trade rapidly changed the material culture of the tribes, which transition, in turn, probably created some friction and frustrations within the group. Such a change in tools, materials, and techniques tended to destroy certain occupational duties without well adjusted replacements, and in some instances created new liesure time. The Woodland Indians' culture was not greatly affected by the French military; however, the tribal relocations effected by the military authorities resulted in new strife and new alliances between the various tribes. The prestige of some Indian leaders was probably increased in the associations of such leaders with the French military, as well as by the presents given them

by French authorities. Increased strife resulted in greater need by the Indians for strong leadership.

Permanent influence by the Jesuits was almost negligible; the Indians, in general, retained their original religious beliefs with little change. The Jesuits were also unable to stay the introduction of brandy among the tribes. The drinking habit thus acquired has been a problem to the present time. European disease germs were also brought into the area by the French and resulted in a number of extremely serious epidemics.

The rapid change in economy resulted essentially in the employment of the Indians as hunters and trappers by the French traders with a resultant loss by the Indians of a great deal of their former self-sufficiency and independence. The fur trade also indirectly increased the diffusion of culture between both various tribes themselves, and between Indians and French.

In general, the Indian tended to accept certain readily useful, or desirable elements of European material culture, but to reject most other phases of the white man's civilization. The French fur trader was by far the most important agent in changing Wisconsin Indian culture during the French Regime.

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A REPORT ON THE OUTLET SITE ON LAKE MONONA

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Beloit College

In the late summer of 1948 newspapers all over the country carried reports and pictures of an "amazing new archeological discovery" in Wisconsin. The articles told how a road scraper had uncovered human skeletal remains which proved to be burials "of the Hopewell culture, an Indian civilization which flourished at least fifteen centuries ago" and that this find was "the first evidence to prove that the tribe had lived in Wisconsin."[1]

The month of August always produces a period of doldrums in newsreporting and the coincidence that archeological work is usually in progress about this time coupled with the genuine public interest in the results of excavations leads to a broad coverage for such activities. It also seems to result in sufficient distortion, not necessarily of facts but of interpretation, to make the story interesting, unusual, and even exciting. As was the case in the finds near Lake Monona there is almost always an important thread of fact in the newspaper stories but the reporter knows that the materials in the ground rather than the archeologist's cautious and tentative statements are the features which will interest the editor and the public. The newspaper articles about the Outlet Site were correct in regard to a number of facts, possibly correct in others, and simply wrong so far as still others were concerned. As most of the readers of this journal are probably familiar with the newspaper articles it will possibly be of interest to tell the whole story of the preliminary excavations which were done last August at this site near Lake Monona on the outskirts of Madison.

The newspaper stories were correct about the roadscraper incident. In the new residential sub-division of Frost Woods Heights is a group of mounds, particularly one large one, which has been of interest to local residents and members

1 These quotations are taken directly from a newspaper article.

of the Wisconsin Archeological Society for many years.[2] When the area lying on the slope above the Yahara River was subdivided the owner, Mr. F. B. Wynne, set aside a triangular plot containing the large mound which was presented to the city of Monona as a public park. Permanent roads form two sides of the triangle and it was when a road was being scraped through the shallow depression which marked the southern side that the first bones were exposed. Credit for the discovery undoubtedly belongs to the small boys of the neighborhood and their dogs, but when Michael Mansfield told his mother about the bones in the side of the road, she and other women of the vicinity insisted that work be stopped and someone at the University of Wisconsin be notified immediately.

As a result of their interest and initiative the attention of the department of anthropology at the University and of the State Historical Museum was directed to the find. Unfortunately the archeologist of the local institutions were in the field and therefore unavailable. However, Mrs. Mary Sward, anthropologist with the State Historical Museum, and three graduate students—Robert Nero, James Silverman, and Saul I. Littman—were asked to investigate and make a report. Upon their arrival at the site it was realized that the road scraper had cut diagonally through a burial removing the lower legs and exposing part of the pelvis and arm. As the bank had been sloped from a point well above the skeleton the skull and the rest of the upper body was believed to be only a few inches below the new surface. Because further disturbance appeared imminent the students reported to the university and it was decided to remove the burial for restoration and recording. This was a simple process and well accomplished, but complications developed as in clearing the earth other bones came to light and it was seen that

2 This site has been located and described by McLachlan in Vol. 12, No. 4, old series of this journal, by C. Brown in Vol. 1, No. 4, new series of this journal, and by others. It is located in the NE¼ of the SE¼ of Section 20, T 7 N, R 10 E, Blooming Grove Township, Dane County.

this was not a single burial which the road scraper had exposed, but that the leg bones of two other skeletons were protruding from the face of the excavation. This complication, plus the belief of Nero, who had cleaned the skull, that something resembling a clay mask had covered the face of the first burial, led the students to return to Madison and suggest that some member of the Wisconsin Archeological Survey be called for consultation.

Dr. W. C. McKern of the Milwaukee Public Museum emphasized the fact that the information which had come to light suggested an interesting and possibly important find and, as he was unable to leave Milwaukee, suggested that the writer, A. H. Whiteford of Logan Museum at Beloit College, also a member of the survey, be contacted. By this time considerable excitement had been generated in Madison. The multiple extended burials, the proximity of the large mound, and the suggestion of clay about the face had led to some speculation regarding the possibility of a Hopewell burial group and it was this magic word Hopewell which was seized upon by the press. Speculation in this direction had some justification, but the evidence was exceedingly tenuous and no such interpretation was given to the papers. What was the evidence which stirred such interest? In the first place the Hopewell people are the only ones in this area who are known to have commonly buried a number of people together in an extended position. The second factor was the suggestion of clay on the face of the skull, which had been partially cleaned. This immediately brought to mind the clay masks which have been associated with the Red Cedar variant of Hopewell and which have been found in no other association. These, however, did not constitute a positive identification of the material as Hopewell, and the lack of additional evidence would have made such an assignment premature to say the least.

As a member of the Wisconsin Archeological Survey, the writer examined the site and, concurring in the belief that it was significant and also that further damage was

probable, agreed to undertake excavation. This work was considered strictly as a holding operation, the objective being to recover the material which had been exposed, record and photograph it **in situ,** define its deposition and associations, and find a convenient and logical stopping place from which further excavation might be undertaken. It was hoped that an examination of the entire site might be possible when Professor Baerreis returned to the university, and the attempt was made to excavate this unit in such a way that it would be possible to integrate it with information to be recovered in future research. Not only did the large mound offer excellent possibilities, but the road scraping operation had exposed bones at three other points and a number of small mounds lay farther down the slope in an area which was to be disturbed by building operations. The actual investigation of this accidentally discovered burial situation was initiated under some difficulties. The time happened to coincide with the Wisconsin Centennial Exposition in Milwaukee, so that the people of the State Historical Museum were unable to participate; final examinations claimed the university students who were eager to assist, and all the equipment normally available from Logan Museum was at Diamond Bluff being used by the expedition of the Wisconsin Archeological Survey to that site. Fortunately the neighbors were exceedingly cooperative, tools were begged and purchased, and Robert Nero managed to rush through his examinations, "borrow" a car from the zoology department to get out to the site and even enveigle Dr. James Beers of that department to assist in the work. Mrs. Ruth Nero also gave practically all of her time for more than a week.[3]

As mentioned above, the skull of the burial uncovered by the road scraper was believed to show indications of clay adhering to the face. In order to protect and preserve

3 I wish to make special acknowledgement of the assistance and companionship of Ruth and Robert Nero. Without their enthusitic and unselfish participation none of this work would have been possible. In spite of organizational difficulties and attendant inconveniences they worked long and hard, learned considerable, and gave every appearance of thoroughly enjoying themselves.

any evidence of this important find the skull was covered with paraffin and no further cleaning was done. The bones of the legs, which were protruding from the road cut were removed but the rest was covered with earth until actual excavations were begun several days later. Aside from getting tools and assistance the first problem was to define the limits of the burial pit. There was reason to suppose that the burials were lying in a pit because no indication of a mound was present and on the sloping profile of the road cut variations in the color and texture of the earth were discernable. When this profile had been freshly recut, the ends of the pit were seen; on on the east immediately beyond the first skull which had been found, and the other end approximately ten feet to the southeast. The decision was made to bracket the area in which the pit lay with exploratory trenches but before this was done a ten foot grid system was staked out with the north-south central axis at the west end of the pit profile.[4] Ten feet from the upper edge of the road cut and parallel to it a trench three feet wide was excavated in an effort to find the rear edge of the pit and determine its point of origin. In addition, trenches were projected from the road cut at the approximate ends of the pit. These were parallel to each other and at right angles to the trench parallel to the road, the result being a pattern of trenches which resembled an open rectangle. It was our belief and hope that the pit which contained the burials lay completely within this unit. The trenches were excavated in six inch levels and the rear border of the pit was identified through soil differentiation in the south edge of the rear trench. We then had three sides with the road constituting the fourth. Upon this identification of the unit for excavation no further attention was paid to the area beyond our rectangle, the enclosed plot was cleared of sod and excavation was begun in six inch levels.

At no point was the burial pit discernable immediately below the sod line. This was to be expected, as the area had

4 The north-south axis was determined as accurately as possible with the instruments at hand and projected to a permanent point on the highway from which a total grid system for the site could eventually be established.

been plowed and at least the top two or three inches below the sod certainly had been disturbed. However, in cutting the second six inch level a bundle burial was discovered lying at the extreme edge of the sloping road cut and above the approximate center of the burial pit. This had been so shallow that grass roots from the recent sod had grown into the cavities of the bones and parts had been disturbed by the plow. The bones were in very poor condition, no artifacts accompanied them and it is probable that this burial had little direct relationship to those actually included in the pit.

Almost immediately below the plow zone at a depth of approximately twenty inches a circular pit came to light, located about four inches beyond the northwest corner of the burial pit. It was eighteen inches in diameter and twelve inches deep with a rounded bottom and excurved sides. Nothing was contained except a few pieces of bird bones, some very small flint chips, and fragments of charred bone and other charcoal. The fill was very black and very granular and samples were saved for laboratory analysis in the hope that some additional information might be recovered. It seems likely that this also had little to do with the neighboring burials and probably was a refuse hole. It should be mentioned that very small flint chips were scattered through the area to the north of the refuse pit.

In the meantime work in the definition of the outlines of the burial pit had been progressing and although several six inch levels had been removed in the longitudinal trench on the edge farthest from the road without finding anything, the cross trenches had picked up the ends of the pit and careful clearance soon produced an oval outline slightly less than twelve feet long and approximately eight feet wide.[5] The point of origin appeared to be approximately fifteen inches below the surface and several inches below the zone which had been disturbed by plow action. The actual edge of the pit dipped to the southwest at about the same rate as the surface slope so the overburden was about the same thickness overall.

5 The approximation of width is due, of course, to the fact that the road scraper had removed one side.

The large burial pit was clearly apparent as the disturbed earth and the darkness of organic decay contrasted clearly with the surrounding gray-tan sandy clay. It was possible to confine activity to the contents of the pit alone simply by removing the fill in three inch levels. The walls of the pit were easily differentiated from the fill by both color and texture and before long it was found that they became straighter and more nearly vertical to give the excavation a rectangular shape with well cut sides and angular corners. A close watch was maintained for cultural materials but absolutely nothing was found, except a very few small flint flakes and occasional flecks of charcoal.

At a depth of two and a half feet below the surface it was noticed that the fill in the northeast end of the pit was rather soft and loose and in clearing the floor of the most recent level for inspection the skull of what was subsequently designated as burial 9 was discovered in the extreme northeast corner. Mattocks and shovels were praitically abandoned from this point on and in rapid succession six more skulls were found. The practical problems of excavation became rather complex at this point, as it was impossible to work on the materials in the corner of the pit without standing on some of the others. To avoid this planks were borrowed from the ever helpful neighbors and a number of catwalks were constructed upon which the excavators squatted or reclined. These cramped positions on the narrow boards were more comfortable in appearance than in fact and the work proceeded slowly as each grain of dirt had to be removed by the spoonful or by carefully sweeping it through labyrinthic channels among the bones.

Plates 1 and 2 show the remains of the burial pit after several days of hard work. In plate 1 the straight walls and nearly rectangular shape of the pit can be seen, the diagonal slope of the road cut is apparent in the foreground, and the group of eleven burials is shown concentrated in the northeast end. Absolutely nothing was found at the other end of the pit and we can only surmise that it was excavated for a purpose but that either the materials deposited have decayed without leaving evidence or the

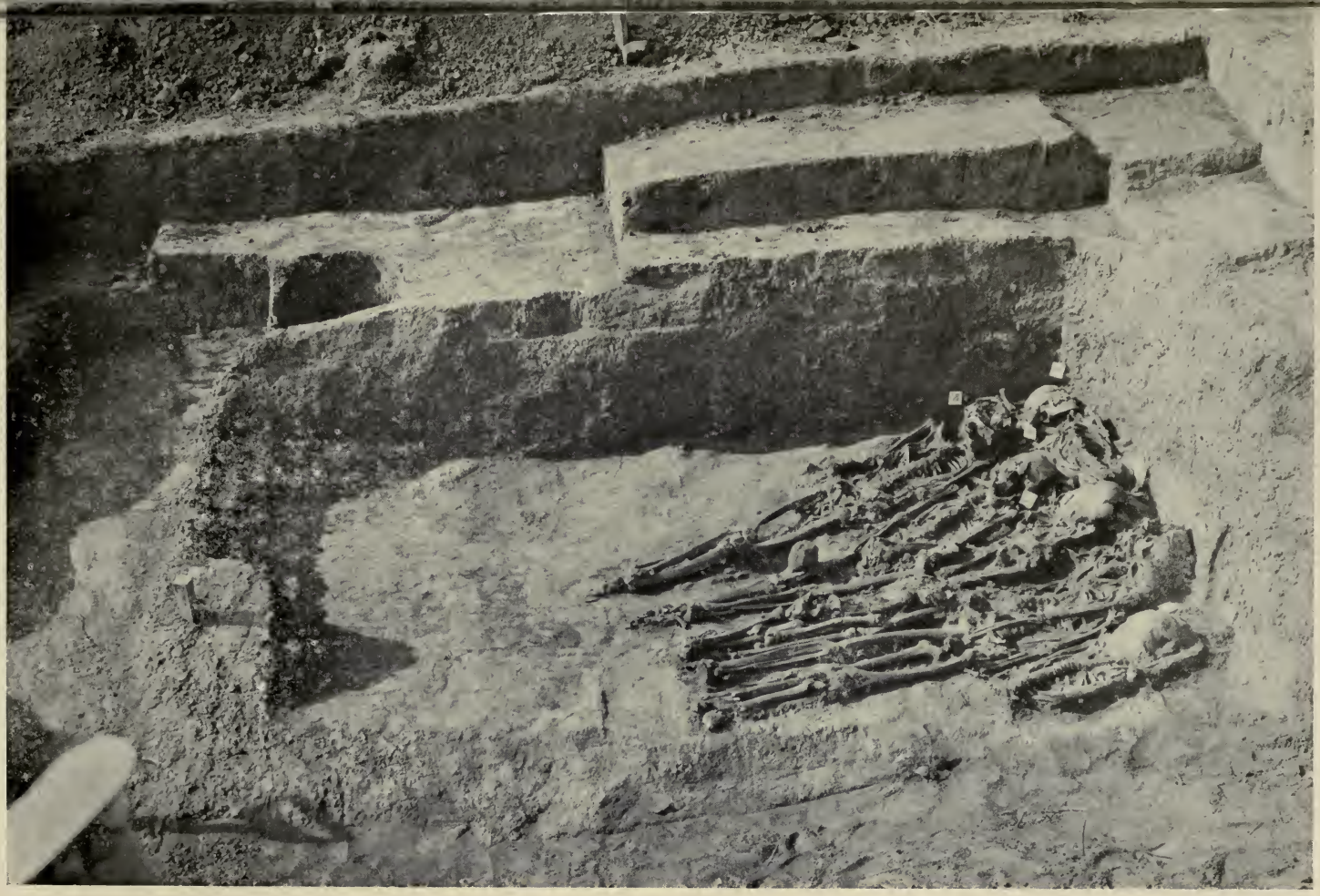

Plate 1

people were unable to carry out their plans and utilize the grave.

Plate 2 shows the burials. Unfortunately they are not numbered in this picture but Burial 2, which was first found, is at the right with the paraffin covering on the skull, and Burial 9, the highest of the group, is at the top of the picture. When finally cleared the skeletons of eleven indivduals were found inclusive in the pit. A preliminary analysis showed one infant under the lower legs of burial 9, two children, one of which was lying well down the pit with its head at the level of the pelvis of the adults, and at least one adolescent. Two major types of burials were present: inhumations fully extended on their backs; and the secondary bundle burials. It was believed at first that these might represent two periods and that the bundle burials were possibly intrusive but further investigations indicated that all are so interlaced that such a situation is rather unlikely unless some very peculiar type of disturbance had taken place.

That some disturbance has affected the situation seems certain. The major instances are as follows:

Burial 4—skull apparently had rolled backward and lay upside down, mandible separated from the skull.

Burial 8—mandible inverted, extra clavicle.

Burial 5—proximal tibial epiphyses and one distral femural epiphysis moved to near ankle.

Burial 7—right clavicle missing, one patella found under left arm.

In addition the foot and toe bones were missing in several individuals or lying between their legs, and a number of large bones had been broken long before excavation. These facts are difficult to interpret. It seems unlikely that these bones might have been disturbed for later burials and then replaced with such anatomical accuracy as prevailed. It has been observed in archeological excavations that rodent action will sometimes account for almost fantastic disturbances of material and it is probable that the activities of small animals or even woodchucks might account for the displacements present here.

The order of deposition is also difficult to determine,

Plate 2

partly because of the disturbance mentioned above, and partially because there is no obvious pattern. The sequence is indicated somewhat from the following positions: burials 7, 8, and 10 are not overlapped by any other bones and apparently were among the last buried; burial 5 lies partially under burials 7 and 10; burial 4 also lies under burial 10, but is superimposed upon burial 3; this lies over the top bundle burial number 9. Burial 9 is directly over burials 6 and 11, and the infant burial number 12 lies under its feet. Burial 2 is difficult to assign as it is in less intimate contact with the rest of the group. It is probable that it was deposited at approximately the same time as burial 3.

The sequence of burials suggested by the vertical relation- one is thatt he bundle burials were deposited first and that ships suggests at least two possible interpretations. The first the extended interments represent a later group. The bundle burials certainly lie at the bottom of the pile and are not superimposed upon an extended one in a single case. They may have been the original occupants of the pit and it is conceivable that if they had been buried in the flesh that at the time of the second funeral ceremony their bones were gathered up and redeposited in the corner to make room for the new bodies. This interpretation would make the empty southwest corner of the pit even more anamolous. On the other hand they might have been deposited in this position originally and the second group of burials was merely placed beside and slightly overlapping them.

The second interpretation is that they were deposited simultaneously and the pit was never reopened during aboriginal times. This is based upon the recognition that secondary bundle burials were common to many prehistoric Indian cultures in this and other areas, and the postulation that burials 6, 9, and 11 were simply the bones of those who had died at an earlier time, been exposed so they could be stripped, and then buried at the same time the more recent dead were interred. Some substantiation of this hypothesis is possibly to be found in the fact that the bundle burials differ from each other, 6 and 11 being completely disarticulated, while burial 9 is only partially disarticulated and appears to have been dismembered only at the hips so that the legs

Plate 3

(which were apparently articulated) were laid under the torso. This suggests that long and complete exposure was not considered absolutely necessary for proper burial and partial disarticulation was permissable when disposition of the body became possible. This interpretation would mean simply that after the pit was dug the bones of those who had died previously were taken from their platforms or burial houses and piled in one corner while the bodies of those who had recently died were laid on the floor with their heads near or slightly overlapping the bundles of bones.

I am inclined to accept the latter interpretation, although a settlement of the question may be reached by an analysis of the physical types represented in the pit and further excavation will undoubtedly produce an answer. Additional archeological research in this area will also eventually provide a solution for the most important queries; who were these people buried at Frost Woods, to what culture do they belong, and how does this material fit into the developing pattern of prehistory in Wisconsin? Attempts at identification are not aided by typological comparison of artifacts as absolutely no pottery was found associated with the pit and the only artifact recovered was a slender needle-like copper point in the fill of the pit near the floor. It was not associated with any of the burials and must be considered an accidental inclusion.

The only remaining clue are the comparison of the physical types in the pit with other materials, a procedure which will come in the future, and an analysis of the burial pattern. Without presenting a detailed review of the burial traits it can be said that the complex most strongly suggests affiliations with the Hopewell culture. The possibility of clay masks on the first skulls uncovered cannot be fully commented on at this time because the specimen which was encased in paraffin has not yet been uncovered in the laboratory. However, some white clay was observed on the face of burial 3 and neither this nor what was seen of the clay on the face of burial 2 resembled the modeled and baked masks which were found in Barron County with the Red Cedar variant of the Hopewell culture.

In general the Trempeleau Focus of Hopewell is suggested

with the multiple burials extended and bundle and the rectilinear grave pit. The types of deposition are not conclusive, as extended burials are found rarely in Woodland, and usual in Middle and Upper Mississippi cultures, but almost always singly and the occurrence of a number of extended individuals buried together is definitely Hopewell. The bundle type of burial is also found in the Woodland culture, but again they are characteristically single and the burial of a group is characteristic only of Hopewell in this area. The fact that identification as Hopewell is arrived at with any hesitation at all is due to certain features here which do not follow the general Hopewellian pattern. The absence of grave materials is particularly interesting, for although Hopewell burials have been found in which no artifacts have been deposited, the general practice seems to have been the placement of fairly large numbers of excellent tools and ornaments with the deceased. The absence of a mound is also unique although it is possible that plowing has eradicated it or even that it was not discerned on the uneven slope.

Future work at the Outlet Site and others in this vicinity may prove to be important to the prehistoric pattern of southern Wisconsin. An extension of the Hopewell horizon into this area is to be expected here or at some other site and the preliminary appraisal seems to suggest that it is probably here.

TIE-UPS BETWEEN PREHISTORIC CULTURES AND HISTORIC INDIAN TRIBES IN WISCONSIN

Robert E. Ritzenthaler

One of the most satisfying experiences to the Archeologist is the discovery of definite tie-up between a prehistoric and an historic people. To thus trace a modern tribe of Indians back through its prehistoric phase, noting its migration, changes in culture and influence on other groups, is not only of intellectual excitement to the archeologist, but, more important, the chief aim of archeology. In Wisconsin, archeological investigation over the last 100 years, and especially the systematic investigations during the last 20 years, have revealed four distinct groups of prehistoric Indians in Wisconsin. These four cultures were given the arbitrary names of Woodland, Hopewellian, Upper Mississippi, and Middle Mississippi because at the time their affiliations with historic tribes were unknown, and it was necessary to refer to these cultures by some sort of term. Information has accumulated to the point where, at the present time, we have knowledge as to what happened to at least several of these cultures, and a summary of that knowledge is the purpose of this paper.

In the case of two of these cultures, Hopewellian and Middle Mississippi, we still have not the slightest idea of what happened to them. The Hopewellians, an early people in this area, apparently just died out as an entity either by plain extinction or by complete absorption into some other group. There is no indication that this culture survived long enough to be discernable in the historic picture. The outcome of the Middle Mississippi peoples, as represented at Aztalan, is just as complete a mystery. The Middle Mississippians were the most recent prehistoric migrants to the State, and it is believed that Aztalan was a thriving village as late as 1500 A.D. Since that time the culture has disappeared, leaving no clues as to its fate.

So much for the seemingly dead-end cultures. Turning now to the Woodland culture, we begin to find concrete facts with which to work. On the one hand, evidence points to the prehistoric Woodland culture running up through the Historic Woodland culture as represented by such tribes as the

Menomini, Sauk, Fox, and Potawatomi; and another offshoot tying into the Eastern Dakota Sioux, specifically the Santee. Both conclusions are reached by inference, but inference based on fact. In the first instance the method is to compare the material culture of modern Woodland tribes, as supplied by ethnologists, with that known for prehistoric Woodland as determined by archeologists. The counterparts between the two suggest a definite relationship. Not only material things such as similar bone mat-needles, bone fibre-separators, cup-and-pin games, unit-bowl and micmac pipes, suggest a tie-up, but other synonymous elements such as burial methods, an economy based on hunting, fishing, gathering wild foods, and gardening, and life in small and semi-permanent dwellings are important links. The occurance of a common type of prehistoric pottery throughout the area occupied by historic Woodland tribes is further suggestive evidence. The work of Barrett and Skinner, who found white trade goods, Woodland pottery, and chipped stone artifacts together, while not conclusive evidence of a tie-up, is at least suggestive and provocative.[1] The inferential evidence for the connection between one off-shoot of Woodland and Santee Sioux is quite convincing. In 1935 and 1936 the archeological excavations in Burnett County by the Milwaukee Public Museum,[2] under the direction of W. C. McKern, revealed the following facts. First, that here was a basically Woodland culture with a slightly different pottery type, although still Woodland, and an Upper Mississippi type arowhead. Secondly, the finding of a horse skull **in situ** could only mean that this Woodland culture carried into historic times. The finding of beaver remains with hair intact and birchbark containers in fairly good condition is further proof that the mound was of relatively recent vintage. The identifying of this site as Santee Sioux was simple. There were only two groups in this area in prehistoric times, the Chippewa and Santee. The Chippewa were late comers, entering the region about the middle of the seventeenth century, built no mounds, and

1 Barrett, S. A. and Skinner, A. Unpublished notes.

2 McKern, W. C. Unpublished information.

admitted in fact that the mounds were already there. Thus the only historically present group that could have built them was the Santee. Substantiation of this came from Minnesota where similar cultural material occurred on known Santee historic sites.[3]

The history of the Upper Mississippi peoples is by far the most complete and definite. Here, where the direct historical method could be employed, concrete evidenc is available to determine that both the Winnebago and Iowa are descendants of the Upper Mississippi peoples. At the Karow Village site,[4] traditionally an old Winnebago habitation site in Winnebago County, Kanneberg and Dart found typical Lake Winnebago Focus material exclusively. The same two men found the Lake Winnebago Focus richly represented at the McCauley site,[5] a known historic and traditionally known protohistoric camp site of the Winnebago Indians. The material of the Orr Focus of the Upper Mississippi Phase in Wisconsin is synonymous with Orr Focus in Iowa where it has been tied up with the historic Iowa Indians.[6]

3 Linton, Ralph and McKern, W. C. Personal investigation. (Unpublished.)

4 McKern, W. C. Preliminary Report on the Upper Mississippi Phase in Wisconsin. M. P. M. Bull. Vol. 16, No. 3, pp.125-6.

5 Ibid pp. 124-5.

6 Work of Charles R. Keyes, Iowa State Historical Society. Griffin, James B., the Archeological Remains of the Chiwere Sioux. American Antiquity 2, No.3, pp. 180-1, 1937.

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June 1949

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TRAIT LIST OF
THE EFFIGY MOUND ASPECT

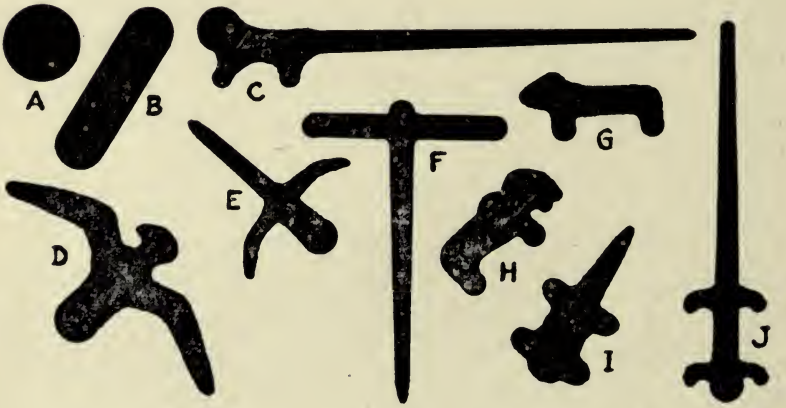
By W. C. McKern & Robert E. Ritzenthaler
Drawings by Kermit Freckman

As effigy Mound culture is an aspect, or sub-division, of the Woodland culture, it should be noted that the majority of traits are identical to those previously published for Woodland. While the Effigy Mound peoples did retain the basic Woodland way of life, they also developed some specific and distinctive elements of their own such as artifact types and burial in mounds in the shape of birds and animals. It should also be pointed out that Woodland culture has a wide distribution whereas Effigy Mound is a local culture centering in Wisconsin and spilling only slightly into the adjoining states of Minnesota, Iowa, and Illinois.

Effigy Mound culture shows some variations within itself, and has been tentatively broken down into three foci: Grant, Buffalo Lake, and Horicon. However, it should be emphasized that this is a very preliminary breakdown based on the excavation of a small number of sites, and very meagre material. This trait list, however, includes the total aspect and is based primarily on excavations at the following sites in Wisconsin:

Site	County
Nitscke	Dodge
Raisbeck	Grant
Utley	Green Lake
Kratz Creek	Marquette
McClaury	Marquette
Neale	Marquette
Kletzien	Sheboygan
Trowbridge	Trempealeau
Ross	Wood

I. Community Life
   A. Semi-sedentary, small villages (as evidenced by thin, scattered deposits).
II. Economic Life
   A. Hunting, fishing, and the gathering of wild foods more important than gardening.
   B. Perishable houses (wigwams) easily moved from place to place.
III. Burial Customs
   A. Location of burials.
      1. In low mounds built in groups and usually including several of some of the following shapes: (a) round or "conical", (b) linear, (c) panther, (d) eagle, (e) water fowl, (f) cross, (g) bear, (h) buffalo, (i) turtle, (j) lizard, et al. Other earthworks are effigy intaglios which contain no burials.

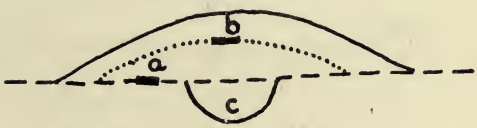


   B. Burial Type.
      1. Primary (immediate burial in the flesh)
         a. Nearly always single with posture from fully to semi-flexed.
      2. Secondary (reburial of bones).
         a. Single or compound. Occasional occurance of large cluster of secondary burials in one mound in group. As many as 50 individuals.
         b. Orderly or disorderly bundles of surviving bones.

3. Cremation (always partial)
    a. Primary
    b. Secondary
4. Various combinations of primary flexed, secondary, and cremations.

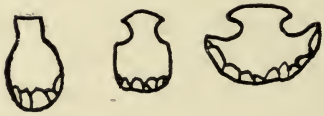
C. Grave furniture
1. Rare or absent (if artifacts occur they are of usual type, i.e., no special grave goods).
2. Ceremonial fireplaces or altars. Circular plats of rocks on mound floor containing charcoal, ashes, and, occasionally, potsherds.

D. Disposal
1. In mounds
    a. Burials may occur on mound floor (a); above mound floor (b); or in shallow rounded pits below mound floor.

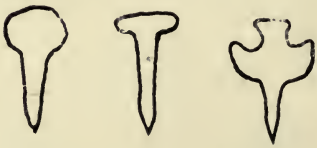


IV. Artifacts
A. Stone
1. Chipped stone
    a. Techniques
        (1) Percussion flaking predominant over pressure flaking. Thus products are characteristically coarse and heavy.
    b. Products
        (1) Projectile points (arrow and spear points) (common)
            (a) Stemmed and notched points most common.

(2) Side-scrapers
(a) Heavy and generalized; irregularly curved outline; crude rough scraping edges.
(3) Notched or stemmed end-scrapers



(4) Drills
(a) Variety of base shapes; usually an elongated point.



2. Pecked, ground, or polished
a. Techniques; pecking, grinding, polishing, or any combination thereof.
b. Products
(1) Grooved axes. (Found in adjacent campsite, not in mounds)
(a) Three-fourths grooved.

(2) Fluted axes. Assumed to be Effigy Mound on basis of their distribution closely coinciding with that of effigy mounds.

(3) Spuds or handled celts.

(a) Medium to rough finish with flat, oval head.

(4) Gorgets of simple shape reported, but not authenticated.

(5) Pipes. None of stone.

3. Rough stone (unworked implements)

a. Abraders

(1) Of sandstone or other rough stone showing grooves or other evidence of usage as a grinder. (Found at adjacent campsites, not in mounds.)

b. Hammerstones

(1) Water-washed pebbles with battered ends or pitted surfaces. (Common at adjacent campsites, not in mounds.)

B. Bone

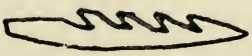
1. Products

a. Awls

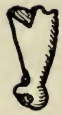
(1) Deer ulna perforators.

b. "Harpoon points"

(1) With more than one barb on one side.

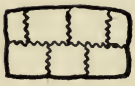


c. Cup-and-pin game



(1) Of bear toes.

d. "Mesh spreaders"



(1) Of squared sections of turtle plastron

C. Shell

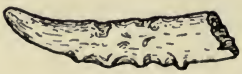
1. Prouducts

a. Beads

(1) Of snail (anculosa) shell with one side ground off to produce two holes in flat surface.

D. Antler

1. Products



a. Stone flakers

(1) Unshaped antler tips.

E. Metal

1. Copper

a. Techniques

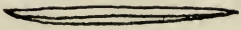
(1) Cold hammered, or annealed

(a) Products

1. Celts or wedges

a. Flat and rectilnear.

2. Awls



a. Double-pointed, square in cross-section.

F. Pottery vessels

1. Technique
   a. Paddle and anvil.
   b. Coiling (probable)

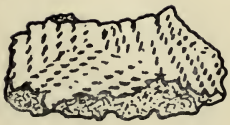
      (Both may be used on same pot. Very difficult to determine which technique was employed.)

2. Paste
   a. Granular texture, breaks along irregular lines, leaving rough edges. Grit tempered.

3. Surface treatment
   a. Cord application to exterior.

   b. Secondary smoothing after cord marking (rare).

4. Decoration
   a. Techniques



(1) Imprinting with cord-wrapped implement (See drawing F3a.)

(2) Punctuate (small implement indenture)

(3) Imprinting with single cord

(4) Sharp incising. (At adjacent campsites, not in mounds)

(5) Embossed nodes

(6) Puncturing (Holes poked through rim)

(7) Stamping with small natural objects such as straw ends, bone, etc.

(8) Absence of any decoration.

5. Areas decorated

a. Outer rim (occasionally extending to shoulder), inner rim, lip. Inner rim is very characteristic.

6. Decoration or design

a. Majority of vessels are decorated, and a great variety of designs occur.

(1) Most common is a simple geometric design made up of straight lines to form a band around the vessel.

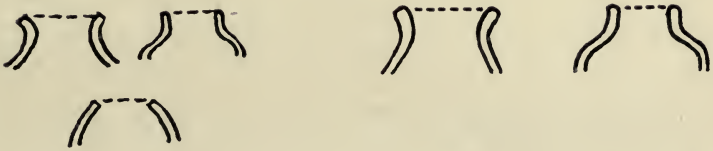
(2) In instances, an elaborate, complex geometric design.

7. Shape

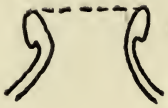
a. General shape

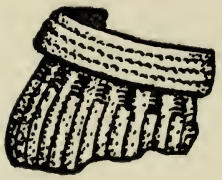
(1) Wide-shouldered, open-mouthed, with tendency toward a pointed (conoidal) base.

b. Rim shape



(1) Low to medium rims usually flaring out slightly; occasionally vertical.
(2) Occasionally with thick outer lip margins, or collar-like folds (not true collars)





G. Pottery Pipes

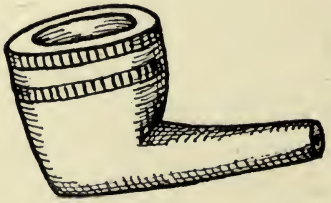
1. Paste

a. Without grit or other apparent temper.

2. Shape

a. Invariably elbow with short to medium intact stem.

3. Decoration (quite rare on pipes)



a. Similar, but simpler, techniques to those used on pottery vessels.

ARCHEOLOGICAL NOTES

The Wisconsin Archeological Society is gradually realizing many of its intentions and purposes. In January of 1947 President William K. Andrew appointed a special committee consisting of Will C. McKern, Robert Ritzenthaler, and Kermit Freckmann. The purpose of this committee was to study important archeological sites in the state, and to list these sites in the order of their relative value to the state for park incorporation. This immediately presented a problem whereby specific archeological sites so studied must also be situated to render additional scenic and recreational possibilities. The recommendations made by this committee and sanctioned by the Board of Directors of the Wisconsin State Archeological Society were then submitted to Superintendent C L. Harrington of the Parks and Forest Division of the State Conservation Department. After final study by the State Planning Board, the first two archeological sites recommended were considered for immediate purchase.

Heading the list was the important Middle Mississippi site of "Aztalan." The Wisconsin Archeological Society owned approximately three acres of land within this site, and immediately deeded the property to the State of Wisconsin when it became apparent that a State Park was contemplated in this area. Since then, a greater portion of the site has been purchased by the State and plans tentatively call for additional acreage and eventually a complete restoration of the ancient fortified villege. Excavation of the site will be carried on during the summer of 1949 by a field party authorized by the State Archeological Survey, and under the direction of Mr. Chandler Rowe of Lawrence College. A report on this work will be available in due time.

Second on the list of recommended areas is the fine group of Indian earthworks known as the "Hagner" Indian Mound group. This also has become a State Park; thus assuring the permanent preservation of a representative group of Wisconsin effigy mounds. Through this same medium, this small area, northeast of Barton, Wisconsin, has finally received adequate attention. The Parks and Forests Division is now doing the necessary landscaping, roadbuilding, etc.,

to make this one of several small but beautiful and interesting recreational parks in the state. More of similar tracts of land are being considered in the Parks and Forests Division's long-range program for acquiring areas for future parks of scenic, historical or archeological value. The name: "Lizard Mound State Park" has been given to the "Hagner" group, since the rare, exceptionally well-formed and preserved "lizard" mound is the outstanding feature at this site.

FIELD WORK

Aside from the excavations now in progress at Aztalan, Wisconsin, other noteworthy projects have been going on. During the summer of 1948, surveys and excavations of the "Diamond Bluff" group of Indian mounds were undertaken by the Wisconsin State Archeological Survey. This is located in Pierce County and is on the park list for future consideration. Although little material was found at this site during excavations, a significant and most interesting fact was uncovered when Upper Mississippi cultural material was found beneath and intermixed with Effigy Mound culture; thus indicating a possibly older age for Upper Mississippi than was heretofore known. These excavations were being conducted under the supervision of Dr. Moreau Maxwell of the Logan Museum, Beloit, Wisconsin.

Upon suggestion of Dr. E. Bruder, one of our active members in the Society, a trip to the Horicon Marsh area was made on May 25th of this year. In one day a total of eighty-five Indian mounds was noted in several groups where no known record of such mounds exist. Some were of the flying waterfowl design more common in that area. Several huge dome-shaped mounds were encountered in one particular group, being fourteen to sixteen feet in height and from fifty to sixty feet in diameter, suggesting possible Hopewell or Clam River origin. It is expected that a thorough survey of this locality will be made in the near future, and a complete account given in a future publication of the "Wisconsin Archeologist." This helps to prove that much still remains to be "Discovered" in our state of an archeological nature, and plenty of research in the field can and should be conducted by our members.

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THE WISCONSIN ARCHEOLOGIST

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Vol. 30, No. 3
(New Series)

September, 1949

WISCONSIN ARCHEOLOGICAL SOCIETY

Milwaukee, Wisconsin

Incorporated 1903

For the purpose of advancing the study and preservation of Wisconsin Indian Antiquities.

Meets every third Monday of the month at the Milwaukee Public Museum Conference Room. (Except during July and August.)

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All communications in regard to the Wisconsin Archeological Society and contributions to The Wisconsin Archeologist should be addressed to Kermit Freckmann, 4240 N. 36th St., Milwaukee 9, Wisconsin. Send dues to Ernest Schug, 3400 N. Green Bay Ave., Milwaukee, Wisconsin. Entered as Second Class Matter at the Post Office at Milwaukee, Wisconsin under the Act of Aug 21, 1912.

Vol. 30 No. 3

THE WISCONSIN ARCHEOLOGIST

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New Series

MILWAUKEE, WIS., SEPTEMBER 1949

COPPER DISCS IN WISCONSIN

By George L. Pasco and Robert E. Ritzenthaler

Two years ago the first Middle Mississippi copper disc to be found in Wisconsin was reported (Wisconsin Archeologist, N. S., Vol. 28, No. 4) by Pasco and McKern. It was made of thin, sheet copper with a design consisting of an equal-armed cross with a series of raised nodes filling the area between the arms. The interesting thing about the disc was that, besides being the first such speciment to be reported as found in Wisconsin, it was not found at Aztalan (our only Middle Mississippi site) where it might be expected, but in Green Lake County at a well-known Upper Mississippi site.

On April 24, 1949 another similar disc was found in the same vicinity. It was picked from the surface by Mr. Byron Walker in the company of George Pasco (finder of the first specimen) on a Grand River site in the Town of Kingston, Green Lake County.

Like the first, this specimen was made of sheet copper with designs beaten from the back in the so-called repousse technique. This specimen is nearly round, and eleven sixteenths of an inch at its widest diameter. The designs consist of an equal-armed cross running the full diameters with a nine-pointed star around the circumference (fig. 1). There is no hole for suspension as in the case of the first specimen, nor is there any indication of it being used as overlay such as practiced in the Southern States in connection with such copper covered ornaments as wood and stone ear spools. Incidentally, two examples of copper overlay on ear spools have also been reported for Aztalan, and are on exhibit at the Milwaukee Public Museum.

While its use remains a mystery, the cultural affiliation of

FIGURE 1

the disc is clear. Both design and typology are characteristic of the so-called "Death Cult" of the prehistoric Indians of an area in and surrounding the states of Alabama, Tennessee, and Arkansas. The Middle Mississippi culture (in which the "Death Cult" would seem to have been a late development) coming up from the south established its northernmost outpost at Aztalan near the present site of Lake Mills, Wisconsin. As yet, however, no such copper discs have been reported as coming from Aztalan, and these two specimens remain unique both as to type and locale for Wisconsin.

THE BROKEN PERFORATIONS ON BIRDSTONES

By Joseph Ringeisen, Jr.

One out of every six birds has either the front or back bridge over the perforation broken and missing and sometimes both.

This has puzzled archeologists, especially the "Birdmen," as to the probably cause of the large percentage of perforation breakage.

After considerable study and thought on this subject, I have come to the conclusion that a large part of this breakage occurred while the bird was in the making by the aborigine.

Drilling through marble or slate, by hand, was as tedious a task for the White man with his steel hand drill (that is, before the invention of the electric hand drill) as it was for the Indian two thousand years ago with his flint drill. Having drilled thousands of holes through slate and marble partitions for plumbing fixtures in my occupation, and also having experimented with a flint drill, I know whereof I speak.

A small number of birds have been found on which the drilling, through the projection or leg, on the bottom of the specimen, has been made entirely from one side. The more common way was to drill half way from one side and then drill the other half from the opposite side, to meet the hole previously drilled.

If extreme care was not exercised at the critical moment, that is, when the point of the drill penetrated into the bottom of the opposite hole, the result would invariably be a broken drill.

The point of the drill in solid stone will regulate the depth of the cut to one hundredth part of an inch on the sides of a tapered hole. When the resistance on the point is released as it would be when it breaks through into the opposite hole, the sides of the drill will cut too deeply into the stone and break the drill. This is not only true in drilling with a flint drill by the Indian a thousand years ago, but also when drilling with a steel drill in iron by the White man of today.

The Indian knew this from experience. Rather than break his perforator he would drill to within one sixteenth or one

thirty-second of an inch of breaking through at the junction with the opposite hole, then take a punch and break out the remaining thin partition of stone. It would then be an easy matter to reinsert the drill and ream out any sharp edges left by the punch, which would otherwise cut the thong with which he fastened the bird.

I have examined many birds on which the Indian neglected to cut out these sharp edges and probably lost his bird on that account. If, however, his punch was a fraction of an inch larger than the hole made by his flint drill (using the tools at hand and not having the graduated punches we have today), it would exert the pressure from the solid body of the bird, outward upon the small, weak bridge of stone across the aperture and in nine cases out of ten, would break it out. After the breaking of the perforation, he would either have to drill another hole, or pass the thong across the back of the bird, in order to fasten it. We have evidence of both on birds found.

ATTENTION

THE WISCONSIN ARCHEOLOGIST needs material. The Editorial Committee invites you to send in for publication any articles, long or short, relating to Wisconsin archeology. The Committee is particularly interested in obtaining material from members outside Milwaukee County. You may want to describe an interesting artifact in your collection; or record a new campsite, mound group, garden bed, or petroglyph. We do not expect literary masterpieces of our members. In most cases a simple statement or explanation of the facts is all that is necessary. Please include any photographs, drawings, and maps which may help explain your text. Photos should be at least 5x7 in size.

Send all material to:

Mr. Kermit Freckman, Editor.
4240 N. 36th St.
Milwaukee 9, Wis.

PRACTICAL TIPS ON COLLECTING AND SURVEYING

By W. C. McKern

The average man is curious about many things, particularly those things which relate to his own surroundings and experiences; but it seems to be characteristically human to develop a special curiosity-interest in one selected subject. If this interest is encouraged by opportunity and permitted to grow, it develops into something which may range all the way between a hobby and an avocation. Whether the one or the other, it takes on decided importance to its pursuer. The selected subject may be postage stamps, big game hunting, genealogies, mechanical inventions, first-edition books, social welfare, educated fleas, astronomy, buttons, lion taming, blonds, or any one of a thousand of other things, trivial or profound, ridiculous or sublime. Important among these human secondary pursuits are those which lead to the contribution of worthwhile knowledge; and of these the subject of archaeology is gaining rising popularity.

COLLECTING

The true archeological value of any collection, regardless of what it may bring on the market, is directly proportionate to the quantity of information it supplies. Specimens which do not impart definite information, such as objects from an unknown source, no matter how fine, have absolutely no value to the archeological student. They are nothing more than curious objects, and have no place in an archeological collection. Consequently, the first rule of the collector should be to secure all the information available for any piece added to his collection, and to have nothing to do with specimens concerning which nothing is known as to origin.

In order to successfully inforce this protective rule, the collector must develop a highly critical attitude toward the source and nature of information on prospective acquisitions. His records are worthless unless they are accurate throughout. He can not afford to accept statements from questionable or unknown agents. If he personally finds the specimen, he can be certain of his information. If the finder is personally known to the collector to be absolutely reliable, its place of origin may be ascertained without reasonable doubt. How-

ever, second-hand information supplied by people of known reliability should be traced to its original source and judged accordingly. Your best friend may be mistaken in his facts.

There is always an important element of risk involved in purchasing objects from dealers. Many dealers are honest merchants, but even these may not appreciate the importance of strict accuracy as regards the origin of specimens, over-credulous of sources of information, careless as to their records, or even poorly equipped to detect frauds. It should always be remembered that the dealer is much more apt to be interested in disposing of his wares at a profit than in any aspect of the science of archeology.

Some dealers are wholly unreliable and unscrupulous, even when they advertise to secure all their materials directly from archeology sites. Dealers do a great deal of trading with each other, and the specimen which comes to the buyer may have changed hands a dozen times, which introduces a dozen chances of inaccuracy as to the information associated with the specimen. Know your dealer and know the complete history of the specimen after it was found before considering purchase. This is the only protection both for you and for the honest dealer.

It should also be pointed out that the dealer who obtains his stock in trade by means of excavation is very apt to be entirely ignorant or careless of correct excavation procedure. He therefore, due to faulty methods and unscientific attitude, is apt to destroy much more valuable information than he saves with the specimens. Consequently, the collector who provides the funds for this work by purchasing the specimens is subjecting himself to the accusation that he is contributing to the wanton looting of important sites and the wholesale destruction of invaluable information. It is questionable if the sincere student-collector desires to be so classified.

CATALOGUING

The purpose of keeping a record of materials in a collection should be the essential dictator in determining the kind of catalogue to be used. Some form of recording information about specimens is indespensible. Any form will serve which

renders readily available the information on each object in the collection. The most simple and inexpensive catalogue, adequate for the needs of the average small collection, consists of a notebook in which the specimens, listed in numerical order, are described as to type, size, place of occurrence, and finder. The data on type and size may be omitted at the discretion of the collector, but often prove useful where included. The number under which a specimen is listed in such a catalogue corresponds to the number written in ink on the actual object. Black India ink is preferable both for catalogue and specimen numbers, excepting that white ink may be required for writing on very dark specimens.

Where possible, specimen numbers should be written directly on the surface of an object, on the side least desirable for display purposes. If this is not practical, the number may be written on a small gummed label which is then pasted to the specimen. In either case, a coat of transparent waterproof lacquer should be spread over the number, or over the entire label and bordering portions of the specimen when a label is used. In instances numbered tags may have to be attached to very small objects, in which case the tags should be lacquered and attached to the specimen with small copper wire.

Much more elaborate catalogue books may be employed, specially bound and prepared for endurance and permanency. Loose-leaf catalogues with typed records, although they have their advantages, are not recommended since unattached leaves are easily misplaced or inadvertently destroyed. With a little care, hand-written entries can be made as legible as if typewritten.

Many collectors prefer keeping their records in the form of a card index. The objection advanced for loose-leaf notebooks applies equally well here, unless one is very methodical and the files are not accessible to others. The cards should be kept in a regular filing case. I have seen at least one collection in which the catalogue data were written on the large envelopes containing the specimens. These envelopes, specimens and all, were then filed like index cards in desk drawers specially equipped to suit that purpose. Only specimens of limited size can be filed with the data in this manner.

Whatever may be the selected method of cataloguing, certain data should be recorded: A brief, accurate description of the object; the place where it was found, including when possible the site or property, quarter-section, township, range, county, and state; how or from whom obtained. Any additional information, such as: ploughed up, vertical depth, burial or other associations, or adjacent surface features, should be added in as great detail as possible. The greater the accurate information, the greater the scientific value of the specimen; whereas inaccurate information is more objectionable than none.

THE FIELD SURVEY

Private collectors with limited time and resources may best serve themselves and American archeology by centering their efforts in collecting both specimens and information in a more or less restricted area, such as a single state, county, or similar local region. Such a student-collector may become the recognized specialist for his locality, whereas he could hardly hope to secure such a standing for a much larger area. Moreover, upon the death of the owner, the collection of materials and related data from a limited locality could much more readily be held intact and so continue to serve the interests of archeology; whereas it has been demonstrated repeatedly that larger, more general collections are almost certain to be scattered, and their scientific value largely lost, at the death of the original collector.

In addition to collecting specimens, it is of great importance to archeology that an appreciable number of amateur students take an active interest in preparing maps of local areas on which are indicated the nature and number of archeological surface features, such as artificial mounds, other earthworks, village and camp sites, Indian trails, quarry sites, burial grounds, and caves or rock shelters containing evidence of aboriginal occupation. Those who find this variety of field work attractive not only have the satisfaction of knowing that they are contributing toward the recording of important information, and assisting in preserving for future generations monuments built by prehistoric predecessors, but they

also may apply the information so obtained toward the solution of local problems in prehistory as absorbingly interesting as the plot of any detective story.

The true objectives of archeological survey should be ever present in the surveyor's mind, since important accomplishment always adds to the pleasure of any enterprise. I have said that the general objective of archeological study in America is to piece together the intricate story of the past, to carry history back into dim ages beyond the first written records, to dispel the fogs of time and disclose, in ever sharper outlines, the prehistory of man. With this exciting program in mind, the specific objective of survey is to collect all traits or clues of this hidden story which may remain in the land as superficially apparent features. They may be structures so well built that they have defied the ravages of time. They may be the products of man's handicraft, left inadvertently on the surface, and but lightly touched by the arbitrary forces of nature; or long buried and recently exposed by the plough or wind and water erosion. They may be nothing more than accidental or intentional refuse deposits, the garbage piles of ancient man. Whether large monuments or small bits of material, if they bear evidence of man's activities, or merely of his presence, they contribute some bit of knowledge to the story, and no man can say immediately how important that bit of information may turn out to be eventually.

Field survey does not necessarily require expensive equipment, such as surveyor's instruments. Where state or county plat books are available, giving the exact location of farms, lots, roads and important buildings, the archeological sites may be added without the need of apparatus other than a tape measure and, possibly, a cheap compass. One accustomed to measuring distances by strides may dispense even with the tape. Accuracy, however, is absolutely essential.

The surveyor cannot depend entirely upon his own observations. Certain sites are unmistakably identifiable and can be entered on the map without hesitation. Others are doubtfully of aboriginal origin and should be entered with a question mark. In addition to these, many features, such as

mounds, earthworks, and even village sites may have been removed or obscured by farm cultivation, natural erosion, or other agents, previous to the survey. It is important, therefore, that the surveyor should question old settlers, ransack the literature, and employ other methods for obtaining and checking information on such formerly apparent sites. They should be entered on the map with some mark or symbol indicating their former existence. Old letters, recorded conversations, and references to published statements about such sites should be preserved and given coordinating numbers with the maps to which they refer.

A set of symbols for the maps, each indicating a specific type of site of feature, serves greatly to increase the usefulness of such records. The set of symbols recommended by the former Committee on State Archeological Surveys, National Research Council, in its Reprint and Circular Series, Number 93: **Guide Leaflet for Amateur Archeologists**, 1930, is as serviceable as another. In this, a round mound or group therof is represented by a small circle; an elongated mound, by an elongated elipse; an effigy mound, by a chevron; mixed groups of mounds, by a combination of the proceding symbols; a village or camp site, by a triangle; an enclosure, by a square; a quarry, by an arrow-head; a burial ground (outside of mounds), by a cross; a cave or rock-shelter site, by a three-sided box. To these might be added: a trail, by a dotted line; and a house structure, by an inverted "T" in outline. A diagonal cross on the face of any symbol indicates that it formerly existed unquestionably as indicated on the map. A question mark on the face of any symbol indicates that it is reported to have existed, but the information has not been definitely verified.

Each site symbol should be associated with one of a consecutive series of numbers for that variety of site, and all information related to that site should be marked with the map number, the symbol, and the symbol number. Thus, information about eight round mounds at a certain site might be marked: Map 2, O-8; or: Washington Co., twp. 14, R9N, O-8.

Many archeologists, particularly those representing large

institutions with state-wide archeological programs, have adopted a simple symbolism for registering the location of feature sites. Each county is representing by two letters, the initial and another letter selected, as convenient, to avoid duplication while preserving the character of the name. Thus, Washburn County might be represented by the letters "Wa;" whereas Washington County might be indicated by "Wn."

The nature of the site is indicated next by a small raised symbol. Thus, a group of mounds in Washburn County would be represented by "Wa^{o};" a village site, by "Wa^{v};" an enclosure or similar earthwork, by "Wa^{e};" a quarry site, by "Wa^{q};" a burial ground, by "Wa^{x};" a cave or rock shelter, by "Wa^{c};" the segment of a trail passing through the county,, by "Wa—;" and a house or ruin, by "Wa^{h}."

The third unit of the symbol is a numeral indicating the number of the particular variety of site within the given county, in series as discovered or recorded. Thus, the fifth group of mounds recorded in Washburn County would be represented by "Wa^{o}5."

Naturally, each interested individual would be but contributing to greater confusion by devising his own symbolism. That task should be left to some institution or organization with qualifications and facilities for state-wide activities. Once devised, however, as it has been in numerous states, it is available to be used by all interested students. Cooperation by field students in following, and so standarizing a state survey symbolism which already has been introduced by some representative group, will serve to avoid confusion, foster standardization in methods, and bind together in a common program the activities of all survey students.

Groups of mounds, or the sites of similarly complex features, should be separately charted on cross-section paper. In this manner the exact shapes, relative positions, and accurate intervals of separate features at a site, in relation to important natural features, may be recorded. The elevations of artificial features should also be recorded. A tape and compass are indispensable in the preparation of an accurate chart of this character.

In addition to such site records, the surveyor may find it equally interesting to collect all available information on material specimens known to have been collected at the sites on a map, particularly those in local collections. This can be done with a camera—by making photographic records of various classes of materials in any given collection. The map, the site number, the collector's name and address, and the date should be written on the back of the photographic print, or on a paper attached to the print. Outlined tracings and descriptions of specimens should be obtained in any case, and in an emergency may have to serve in place of a photograph. All specimens of unknown origin should be omitted from the records.

Chipped-stone objects should be either classified according to some method, or, characteristic shapes, actually traced in outline on a piece of paper, one for each shape variety present, may be associated with a numeral indicating the number of that particular shape in the collection from each given site. Similar tracings and numerical records of other type specimens may be made; although additional description will be necessary in many instances when the traced outline does not provide information on important peculiarities. Notes on the major dimensions of objects, and the materials of which they are fashioned, are always important.

The surveyor is also in a position to collect specimens. Village sites, including the more casual camp and workshop sites, are generally identified by the presence on the surface of refuse left by the last occupants, often including fragments of pottery, and broken, discarded, or lost implements and ornaments fashioned of various materials. Such sites provide a rich source of objects for the amateur collector. As outlined elsewhere, a complete record of these finds should be entered in the collection catalogue, and in addition, a similar account should accompany the survey records.

In conclusion, it is hoped that these hints and suggestions will not only be of aid in your own collecting and recording of archeological material, but also, will help you enrich the storehouse of archeological knowledge in this area.

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THE WISCONSIN ARCHEOLOGIST

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Milwaukee, Wisconsin

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For the purpose of advancing the study and preservation of Wisconsin Indian Antiquities.

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COPPER DISCS IN WISCONSIN

By George L. Pasco and Robert E. Ritzenthaler

Two years ago the first Middle Mississippi copper disc to be found in Wisconsin was reported (Wisconsin Archeologist, N. S., Vol. 28, No. 4) by Pasco and McKern. It was made of thin, sheet copper with a design consisting of an equal-armed cross with a series of raised nodes filling the area between the arms (Fig. 1). The interesting thing about the disc was that, besides being the first specimen to be reported as found in Wisconsin, it was not found at Aztalan (our only Middle Mississippi site) where it might be expected, but in Green Lake County at a well-known Upper Mississippi site.

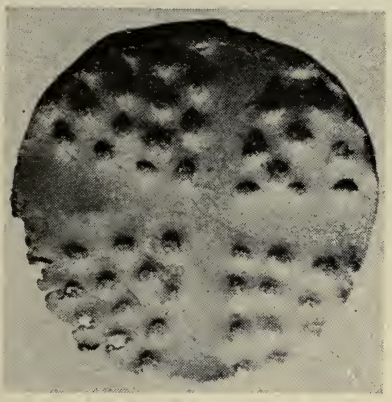

Figure 1

On April 24, 1949 another similar disc was found in the same vicinity. It was picked from the surface by Mr. Byron Walker in the company of George Pasco (finder of the first specimen) on a Grand River site in the Town of Kingston, Green Lake County.

Like the first, this specimen was made of sheet copper with designs beaten from the back in the so-called repousse technique. This specimen is nearly round, and 11|16 of an inch at its widest diameter. The designs consist of an equal-armed cross running the full diameters with a nine-pointed

Figure 2

star around the circumference (fig. 2). There is no hole for suspension as in the case of the first specimen, nor is there any indication of it being used as overlay such as practiced in the Southern States in connection with such copper covered ornaments as wood and stone ear spools. Incidentally, two examples of copper overlay on ear spools have also been reported for Aztalan, and are on exhibit at the Milwaukee Public Museum.

SOME COMMENTS ON TRAIT LISTS AND THE HOPEWELLIAN CULTURE

David A. Baerreis

Recent issues of the Wisconsin Archeologist[1] have contained a series of trait lists of the major cultural units in Wisconsin, the items being presented by a combination of sketches illustrating artifact forms and a brief verbal description of the trait. The usefulness of the technique is such that it has already been borrowed for a description of the Eva Focus in Tennessee[2]. Now that we have had time to digest and evaluate the trait lists, it seems fair to raise the question as to just what their utility is. How can we use the trait lists to solve further problems in Wisconsin archeology? Are the lists designed to be a complete inventory of the cultural content of the varied cultural traditions in Wisconsin archeology so that we can determine the affiliation of a specific site? If this is the objective, it would seem that the lists should be broken down in some manner to indicate what clusters of traits form specific complexes so that we could at least determine the characteristics of the varied foci of a cultural tradition. It would be possible to pose a series of similar questions, but to do so would simply add to rhetorical effect. The purpose of questioning the utility of the trait lists is not to quibble over such matters as the inclusion or lack of inclusion of specific traits but to raise for discussion the problem of the manner in which we can most profitably use trait lists as a tool in archeological methodology.

The question concerning the use of trait lists is a timely one since the technique has attained a certain prominence as one of the basic procedures in the Midwestern or McKern Taxonomic System. In this system of classification, cultures are grouped in categories of increasing size beginning with the component, the basic manifestation of a culture at a single site, through the focus, aspect, phase and pattern. Each unit

1 Vol. 26, No. 4, 1945 (Woodwand); Vol. 27, No. 1, 1946 (Hopewellian, Upper Mississippi); Vol. 27, No. 2, 1946 (Middle Mississippi); Vol. 30, No. 2, 1949 (Effigy Mound Aspect).

2. T. M. N. Lewis and Madeline Kneberg. "The Archaic Horizon in Western Tennessee," Tennessee Anthropology Papers, No. 2, 1947.

is formed by grouping similar units of lesser scope. The classification is achieved in theory by a simple comparison of trait lists to find where the greatest degree of similarity lies. Perhaps the best illustration of this procedure which could be selected is W. C. McKern's[3] analysis of several foci of the Oneota Aspect. Such a taxonomic approach is essentially a means of ordering the archeological data but it does not necessarily provide us with an arrangement of the data which will help us solve the major problems of the archeologist. The archeologist, as a historian, has a two-fold problem. He is both (1) attempting to obtain a sequence of cultures and (2) to interpret or understand the cultures of the past. The search for temporal sequences may be placed as a primary objective since often many facts may be important only in terms of tthis sequence of cultures. It is to be expected that trait lists will aid in obtaining a sequence of cultures, or a sequence within a cultural tradition, and we may therefore examine the manner in which they may be used to do so.

It seems difficult to defend the use of comparative trait lists giving the simple presence and absence of traits in a specific component which then results in the need to analyze a possible situation where components A and B have 45% of their traits in common. To a certain extent, such a procedure seems to be a misuse of trait lists due to a failure to examine thoroughly the nature of both the traits and the procedure. The position taken here is that the use of the trait list is essentially a statistical technique and therefore must be treated as **variables** and be reported in terms of their frequency. It has been demonstrated[4] that various traits occur in an archeological sequence in marked trends of increasing and decreasing popularity. We may therefore expect to

3 W. C. McKern, "Preliminary Report on the Upper Mississippi phase in Wisconsin." Bulletin of the Public Museum of the City of Milwaukee, Vol. 16, No. 3, 1945.

4 e. g., the analysis by Ford of the development of pottery styles in Louisiana and Peru, **vide**, J. A. Ford and G. I. Qunmby, Jr., "The Tchefuncte Culture, An Early Occupation of the Lower Mississippi Valley," Memoirs of the Society for American Archeology Number 2, pp. 80, 83.

be able to arrange our components, under ideal conditions, in some sort of developmental order by means of this varying frequency. A purely hypothetical example of what such a trait list would look like is given in Table 1, using the letters A-E to represent different components and the numbers 1-6 to indicate different traits. In actual practice these figures

Table 1. Hypothetical Example of Cultural Trends detected Through Trait Lists

	A	B	C	D	E
1.	85	76	60	45	30
2.	40	36	20	10	5
3.	12	2	0	0	0
4.	0	4	6	9	11
5.	10	14	16	19	21
6.	32	39	43	51	69

could not be given as the absolute frequency of the trait since the total number gathered at a given site would vary with the extent or size of the excavation. It would be necessary to give the frequency of projectile points, for example, in terms of the percentage of that type point relative to the total number of points recovered at a given component. The trends would then be detected through changing percentages rather than changing absolute frequency. Although it is unlikely that the trait lissts would yield such clear trends of development of traits as that given in Table 1, it is possible that some approximation of this might be found and should be expected. With the hypothetical example given, it is possible, by arranging the order of the components to determine the sequence of development from A through E, or from E through A. The major difficulty to be encountered would be to determine whether E or A represents the older culture, for the seriational trends do not always indicate the direction or development. This direction of trend would have to be determined by another technique.

While the utility of the above technique is obvious, the limitations are probably equally so. To obtain an accurate trend in changing frequency, it is necessary to have a sample large enough to be statistically reliable and, further, it must be gathered in such a way as to be a random sample. The

technique can probably be successfully used primarily with the relatively abundant material found in refuse deposits of a village site and only to a limited extent in other sites such as those providing aspects of the burial complex. Even here it could under some conditions be used by tabulating the number of burials with grave goods, or the number of burials of a specific type or having a definite orientation.

In view of the limitation of the type of trait list described above to specific types of sites and to collections gathered under controlled conditions, can we use similar seriational lists for other types of traits? Here we may resort to a specific example to show the type of information that may be obtained by breaking a general trait list into more specific units with a definite problem orientation in mind. Selecting the Hopewell culture of Wisconsin, we shall consider not only the recent McKern-Ritzenthaler lists, but the earlier lists published in connection with the primary description and analysis of this culture. The complex is well suited for a critique on the use of trait lists since it is possible to indicate several points where a modification in procedure is perhaps advisable. L. R. Cooper[5], for example, in his study of the Cyrus Thomas Mound Group in Barron County has followed W. C. McKern's lead in using a series of traits to compare the "Red Cedar River variant" with both Ohio Hopewell and the Trempealeau Focus. On the basis of ten listed traits which are said to differ in the Red Cedar River variant and the Trempealeau Focus, a separate Red Cedar River Focus is established. It might be questioned whether some of the listed traits such as "mound stratification" and "burial of fine artifacts with the dead" are actual differences between the two Wisconsin complexes. Further, the assignment of copper knives and copper spear and projectile points to Red Cedar River seems to be based solely on their occurence in this general area, not on their demonstrated association with the Hopewell complex. It does not therefore appear to

5 L. R. Cooper, "The Red Cedar Variant of the Wisconsin Hopewell Culture." Bulletin of the Public Museum of the City of Milwaukee, Vol. 16, No. 2, 1933.

be adequately demonstrated that there is a significant complex of traits which differentiates a Red Cedar River Focus and this term should be dropped until that has been accomplished.

We may, however, raise a more fundamental objection to the procedure used in the early reports on Wisconsin Hopewell. That is the practice of lumping together all of the traits in an entire mound group, and even in several mound groups, to form a composite trait list for the cultural complex on the basis of all of the traits present. This is not an objection to the assignment of all the mounds to this local variant of the Hopewell culture or even to the Trempealeau Focus, but rather a feeling that in grouping the traits of all of the mounds into a single list we are quite possibly obscuring temporal differences. Obviously all of the mounds in a single group were not constructed at one time but perhaps even over long periods of time. Clues to temporal succession therefore are to be logically searched for within a mound group and then in the comparison of mounds from different groups. If we break the trait list for the Wisconsin Hopewell culture into a series of trait lists for the specific mounds we see that many of the traits have an extremely limited distribution. Then, by grouping mounds to discover whether there is a repeated clustering of specific traits, it may be possible to isolate stages in the development of this culture.

In the illustration of this technique the material used includes the mound groups described in detail by W. C. McKern[6] and L. R. Cooper[7] as well as the mound groups excavated at an earlier period—the Courtois Group, the Flucke Group and the Sue Coulee Group in Crawford County, and the White Group and Battle Island Group in Vernon County—and reported by Cyrus Thomas[8]. All of these sites

6 W. C. McKern, "A Wisconsin Variant of the Hopewell Culture," Bulletin of the Public Museum of the City of Milwaukee, Vol. 10, No. 2, 1931.

7 op. cit.

8 Cyrus Thomas, "Report of the Mound Exporations of the Bureau of Ethnology," 12th Annual Report, Bureau of American Ethnology, 1894.

have been indicated by W. C. McKern as being of Hopewell affiliation. The preparation of complete trait lists for all of the mounds is difficult, particularly since the excavation of the Vernon and Crawford Groups is not given with the completeness of detail we should desire. The nature of the burial associations, however, appears to be given with sufficient accuracy to make general comparisons which may suggest a potential direction for further study and research.

In general, the Hopewellian sites in Wisconsin are not comparable in abundance and diversity of grave goods to the larger Hopewellion centers such as those in Ohio. This scarcity of material makes it difficult to obtain a seriation in types of burial offerings by means of an overlapping of traits occurring at several sites, a technique which has been used in an analysis of sites of the Ohio area[9]. The scarcity of goods in the Wisconsin mounds makes it necessary to rely on quantitatively smaller changes. Table 2, illustrating suggested temporal changes, was obtained by a fundamenally trial-and-error method of attempting to find significant groupings. First an attempt was made to see if any specific. yet frequently recurring artifact, could be used as an index to a meaningful grouping of the sites. This seemed to be indicated by a series of mounds containing copper celts which could be contrasted with a group of mounds having pottery, but no copper celts, as burial associations. Using this as a sorting device, it was found possible to group a series of "Complex A," consisting of copper celts, conical copper pendants, square sheets of copper bearing a perforation, silver-on-wood "buttons" or spheres, projectile points, chipped stone discs and scrapers (these often can not be differentiated on available descriptions), use of obsidian as a material, pear beads, copper nuggets, and conjoined copper tubes—all these specifically used as burial associations. In contrast to this, "Complex B" lacks all of the above listed traits but does contain pottery vessels, galena, clay masks, and copper-

9 Wm. S. Webb and Charles E. Snow, "The Adena People," The University of Kentucky, Reports in Anthropology and Archeology, Vol. VI, 1945. pp. 200-217.

on-wood "buttons" as burial associations. A series of additional traits provide a linkage in types of burial associations between the two complexes listed above and, in addition, are present at a series of mounds lacking all of the traits listed as composing Complexes A and B. This latter

TABLE 2. SUGGESTED TEMPORAL PHASES OF THE WISCONSIN HOPEWELL CULTURE

Burial Associations:#	A											B									C									
	S16	S18	S19	Nich.	SC7	F1	Shr.39	C22	F2	W10	S12	S17	SC16	W11	C20	C21	C26	C23	S7	CT10	S8	S10	B5	CT8	CT12	W6	B1	SC1	B1	S9	B3
Complex A:																														
1.Copper celt	1	3	1	6	1																									
2.Conical copper pendants		3				2																								
3.Perf.sq.sheets copper		2																												
4.Silver-on-wood button		7		4				3																						
5.Projectile point							4		1																					
6.Chipped stone disc					1					1	1																			
7.Scraper	1		1																											
8.Obsidian			x	x	x	x				x																				
9.Pearl beads		x		x																										
10.Copper nuggets		2					1																							
11.Conjoined copper tubes											1																			
Complex B:																														
1.Pottery vessels							* 3					1	1	2	2	1	2	1	2	1										
2.Galena															x		x													
3.Clay masks																				2										
4.Copper-on-wood button												x																		
5.Polished stone bar.												1																		
Link Traits, Complex C:																														
1.Copper "plaque"				1				1				1			?										2					
2.Copper ear spools		5			2	2						1																		
3.Copper beads	x	x		x		x							x	x	x						x	x	x		x					
4.Copper awls		1			1							2											1							
5.Chipped stone knife	1	2	1	8		2	8			1		1		1	2	1						1	1		1		1		5	
6.Bear's teeth		8			2		5									x							x	1		x	1	x		3
7.Animal jaw					1															1						1				
8.Platform pipe				1								1																		
Burial Traits:																														
Extended primary burials	x	x		x	x		x	x		x	x	x			x	x		x	x		x	x		x	x	x			x	x
Bundle burials	x	x		x			?		x		x	x								x		x	x	x	x				x	
"Folded burials"								x						x	x	x	x									x		x		
Cremations																				x				x						
Subfloor burial pits		x	x	x		x	x			x			x									x		x					x	
Burial encased in puddled mud (?)										x				x	x							?					x			

#Intrusive burials are not included in trait list.
* - Associated with fire place, not burials
S - Schwert Mound Group, Trempealeau County
Nich. - Nicholls Mound, Trempealeau County
F - Flucke Mound Group, Crawford County
Shr. - Shrake Groupe II, Trempealeau County
C - Courtois Mound Group, Crawford County
W - White's Group, Vernon County
CT - Cyrus Thomas Mound Group, Barron County
B - Mound Group opposite Battle Island, Vernon County
SC - Sue Coulee Mound Group, Crawford County

group of mounds may be regarded as forming a third complex, tentatively designated as "Complex C." A further suggestion of the reality of the trend from Complex A to B, or perhaps the reverse sequence, is the indication of a markedly higher frequency of chipped stone knives and artifacts of copper in mounds of Complex A, as contrasted with both B and C. Some specific burial traits are also added to the list though these show no clear differentiation as far as the complexes are concerned. Again, however, some indication of changing frequency is indicated.

On striking difference between specific mounds is not listed in Table 2. This is the fact that in many mounds no grave goods were present. Of the mounds in Trempealeau County only two, and possibly three of the mounds had no grave goods. In Vernon and Crawford Counties, 25 of the 42 mounds excavated are reported as having no grave goods, a considerably higher proportion. Thomas has suggested that these may represent the graves of commoners but while this sociological interpretation is admissable it also seems possible that a temporal factor or one of regional cultural differentiation may be involved. Otherwise we should have to conclude that a great many more commoners lived in Vernon and Crawford Counties than in more northerly sections of Wisconsin. A further difference is the presence in five mounds in Vernon and Crawford Counties of sandstone placed over the burial and an apparently greater use of the practice of encasing the burial in puddled mud, often described as being covered with sandy muck. These traits may also have important chronological implications.

While the various complexes suggested above as repres-ting temporal variations in the Wisconsin Hopewill tradition are highly speculative and no attempt has been made to arrange them in their order of appearance, the methodological approach is suggested as a way in which we may order the the data we now possess to provide hypotheses for future research. Rather than to group our traits into broad lists that obscure differences, it seems more fruitful to split the lists into basic units and then to attempt to combine them into

meaningful patterns. The thesis of the discussion is that our analyses of cultures should have a definite problem orientation. They should be designed to either illuminate some point that requires solution or to indicate a possible solution to certain known problems inherent in all archeological data. It should, of course, be acknowledged that the original Wisconsin Hopewell trait lists of W. C. McKern were designed to show the relationship of the local manifestation to the Ohio Hopewell culture and as such made a valuable contribution to Wisconsin archeology. These, however, have served their purpose in demonstrating this relationship and what is now needed are trait lists that can further clarify the local situation.

THE MAYVILLE INDIAN ROCK PAINTINGS

By Dr. Edgar G. Bruder

A group of five Indian rock paintings, probably the first to be found in Wisconsin, were discovered in late summer by a group of pupils from the Ledge School, about two miles southwest of Mayville, Wisconsin. More precisely, these pictographs are located in the extreme NE corner of the NE quarter of Section 33, T12N, R16E, Williamstown Township, Dodge County. It has been a known fact for many years that Indian pictures and carvings existed on some of the rock walls of the various rock shelters, and so-called caves of the Mayville Ledge, located on the farm of August Luebke, but it remained for Ronald Guptill, Arlen Schellfelfer and Sherwin Fischer to relocate them. I asked these three boys to guide me to the paintings, and they lost no time in getting started, climbing abruptly up a rugged slope, to the highest part of the cliff-like area of the ledge, towering about two hundred feet above the surrounding country.

Upon arrival at the crest, they went into a huddle to get their bearings. After a brief interval, they crawled down into a winding cave about twenty feet long, with a six inch opening near the top. Near the end of this cave, on the south wall, we saw the paintings. They are on a relatively smooth part

of the dolomite limestone wall, and about five feet above the floor of the cave. The color of the paint is black, with a very faint touch of black-maroon edging, and a slight metallic sheen overcast. At first glance, it appeared to be of mineral origin, but to be assured, I had it analyzed from a drop which the prehistoric artist spilled on the rock immediately below the painting. The results showed no trace of manganese, minerals which I had believed present, but instead an organic material, a resin-like substance resembling tar. The dark color was due to carbon. We are are making additional analysis of this paint, which had penetrated into the rock for a distance of two m.m.

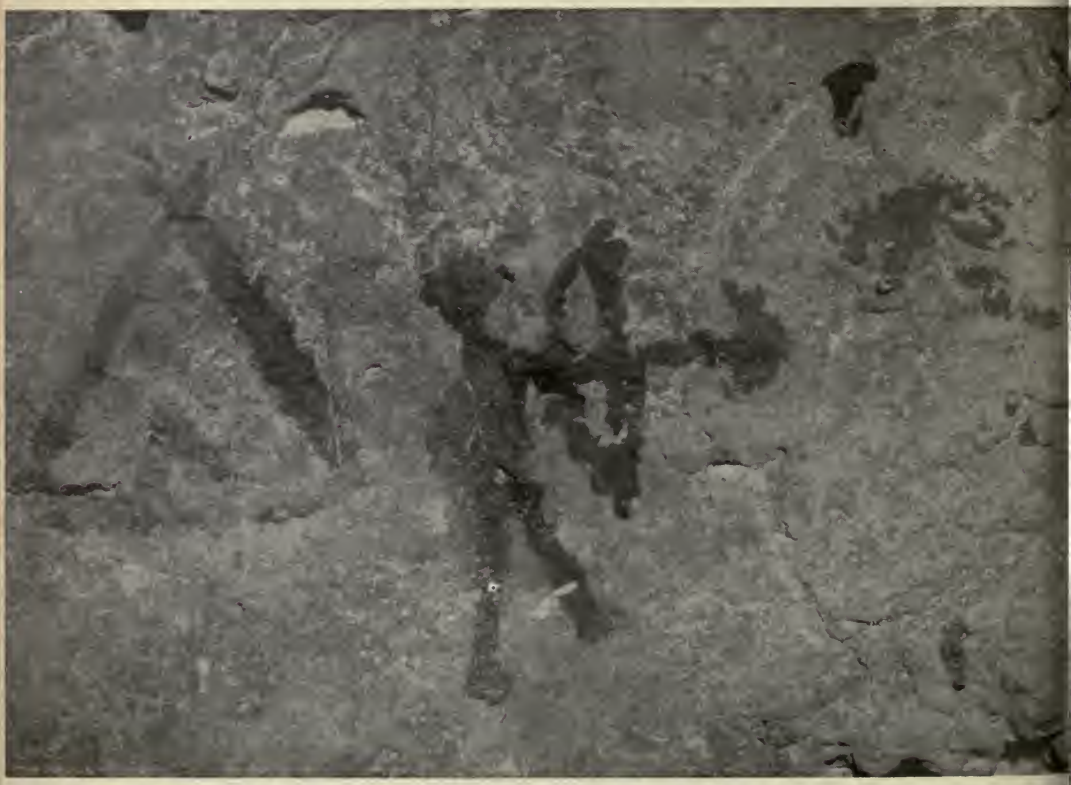

Figure 1

The first of these groups showed a tepee, with the poles projecting beyond the top, and with a curved base. The tepee may indicate that the art was done by some branch of the Sioux Indians. The Plains Indians used this type of dwelling. Next to the tepee, an Indian is shown with four feathers on his headpiece. He is aiming with his bow and arrow at an animal which resembles a moose. The tepee is three and one half inches high, and three and one-quarter inches wide at the base. The hunter is four and one-quarter inches high, and seven-eighths of an inch wide, using a three and a one-quarter inch bow. The "moose" is two inches overall.

While making a sketch of these paintings, I suggested to my guides to explore further, in an adjoining cave. About ten minutes had elapsed when loud "Whoopees" came through a narrow crevice near the floor of the cave. This opening is about twenty inches in diameter and leads to another cave about fifteen feet to the south. The entrance from the top of this second cave is very narrow and it revived memories of Floyd Collins. I called down to the boys, as to my chance of getting through. After some hesitating a very weak reply came forth. "We think so." That was enough assurance, and it was worth the struggle to join them. The boys had located two more paintings. These are crudely executed but appear to me as two views of a turkey, one frontal view and a side view of a strutting bird, with his tail feathers held high. Darkness ended further search, leaving the petroglyphs to be rediscovered at some future time.

On a later trip to the caves these paintings were authenticated by R. E. Ritzenthaler, Assistant Curator of Anthropology, Milwaukee Public Museum, and the other members of the party: Kermit Freckmann of Milwaukee, Secretary of the Wisconsin Archeological Society; Dr. H. W. Kuhm, Charles G. Schoewe and William K. Andrew of Milwaukee, all three past presidents of the Society; Phil Wiegand of Milwaukee; and G. R. Zilisch of Hustisford. A Milwaukee Public Museum staff photographer Delmore Wenzel photographed the paintings and the Signal and Lookout points.

Ritzenthaler estimated that the paintings may be two-hun-

Figure 2

dred years old, and was pleased to find them still clear. This is due in part to the resistant dolomite limestone of the Niagara escarpment, on which the paintings were placed. Sedimentary rocks of this type in Wisconsin are less soluable in water than those found in other parts of the United States.

The caves referred to are not true caves; they are rock shelters formed by the Green Bay Lobe of the last Wisconsin ice sheet moving parallel to the Niagara escarpment. The exposed rocks on the tops of the cliffs show directional striae, and polished surfaces made by the advances of thick glacial lobes. This heavy erosion of the upper layers of limestone was unusually effective, removing all evidence of true and sink holes, but left many deep fissures in the western edge of the escarpment which extends about one mile almost due north from the area of the paintings. In many sections the glaciers pushed huge blocks of solid limestone over these crevices, and formed so-called "caves."

The parallel movement of the glacier of the escarpment left only a very few spurs, or projecting cliffs. On the signal points, clearly defined, what appear to be fire-blackened holes occur near the outer edge. They vary in size from eight inches to fourteen inches in diameter, and from four inches to eight inches in depth. On a clear day from these projecting vantage points overlooking the southern part of the Horicon Marsh, an area of about fifty-one square miles, the following cities can be seen beyond the western shore: Horicon, Juneau, Beaver Dam, Burnett, and Waupun. These prominent cliffs adjoin the area where the paintings are located, and overlook the formerly heavily used trails to the north, along the eastern border of the Marsh.

These three cliffs are in plain view of similar cliffs about six miles to the north, which command an equally splendid view of the northern terrain of the Horicon Marsh. Here the Niagara escarpment again appears on the surface, towering about two hundred feet above the surrounding area to the west, and extending one mile northward into Fond du Lac County. On the outer edge of these cliffs, I found several deep, fire-blackened holes burnt into the rock, similar to those lo-

cated on the southern points. These, in my opinion, are the result of very many signal fires.

In the early pioneer days the Horicon Marsh was practically inpenetrable. An enemy coming from the west would have to encircle the extreme northern, or southern extremeties. These two strategically located signal points, together with the very high hill on the east limits of Mayville, could be used to alert an area as far east as Theresa and U. S. Highway 41. This was part of the last landed ceded to the United States by the Indians in this part of Wisconsin. This treaty was held at Chicago, 26 September, 1833, between the United States and the nations of Potawatomi, Ottawa, and Chippewa. The northern part of this land included the easstern part of Dodge County, the southern part of Fond du Lac County, and all but the northeastern part of Washington County.

The seven-mile area on the eastern border of the Horicon Marsh contains over five hundred mounds, earthworks, effigies, campsites, village sites, gardens, etc., of which we are making an extensive preliminary survey. This is a section of Wisconsin where practically no archeological work has been done. The initial work, thus far, has located some unusual archeological remains which will be surveyed this coming season. Many works of the prehistoric people have been destroyed by the plough, and by construction work of all kinds. It is our aim to carefully record for posterity those earthworks which remain for our study.

THE ARMSTRONG SITE
AN UPPER MISSISSIPPI SITE AT PEPIN, WISCONSIN

By Rev. Thorley Johnson

This report is written in honor of the late Mr. William Eckelberger of Pepin, Wisconsin, who informed me of the location of the site.

An unrecorded prehistoric village site of considerable importance is situated in Pepin County, two miles east of the Village of Pepin and just off to the north of state highway 35. It is on the property of Mr. R. L. Armstrong who has been very kind to alliw investigation of the site. The records of the county treasurer's office show this to be the SE forty of the SE quarter, Sec. 29, township 23, range 14W.

The area of occupation is along the edge of a wide terrace to the Mississippi. The soil is sandy except for its modification due to the refuse of prolonged habitation. The field has been under cultivation for many years, but the darkening of the soil is plainly visible. The site measures approximately 600 feet east to west and 600 feet north to south. Within this area are numerous islands about 30 feet in diameter of especially heavy concentration. Mussel shells, animal bone, flint spalls, potsherds and artifacts are general throughout the village site. Several ash areas have been observed. No effort has been made at excavation of the site, but a few test holes have been sunk indicating a depth of deposit ranging from twelve to eighteen inches. No burials or refuse pits have thus far been encountered.

A number of mounds lie in proximity to the village site. One group of these is just to the east, in a wooded lot. Another group is to the northwest, and has been considerably leveled by repeated cultivation. A single large mound and possibly several smaller ones lie to the north. No effort has been made to investigate or study these mounds, although a number of them appear to have been partially dug by amateurs in the past. It is hoped that future investigations by qualified persons will reveal what relation, if any, exists between the mounds and the village site.

Artifacts on the site are largely abundant, and offer a good cross-section of cultural traits. With but few exceptions, the

Figure 1

specimens collected are surface finds. A portion of the specimens included in this report are the find of Mr. Clarence Madsen and family of Durand.

1. Stone

a. Pecked and|or polished (fig. 1)

Hammerstones of flint are prevalent. A few of granite, smaller in size, and pitted, are to be found. A single full-grooved hammer is made of an otherwise unmodified granite boulder. Several notched very crude axes or hoes were found. Well-made mullers of granite, averaging 9 cm, are represented by three broken specimens. A number of lapstones are to be seen. A very fine mortar of limestone was fortunately spared damage from the plow. It is rougly round, with diameter of 24 cm. The central pit is 13 cm. in diameter, with a depth of 9.5 mm. at the center. Three ungrooved axes were found, and a gouge grooved on both faces. Sandstone arrowshaft rubbers, characteristic of the Oneota Aspect are seen in abundance. Possibly of special significance is the occurrence of discoidals. Over a dozen of these have been found, all broken. They are made of varying materials, mostly hard stone. There is a possible example of a quartz one and a cannel coal one. All are bi-concave. One sandstone example has a large central perforation. They are not highly polished, and average 6.5 cm. in diameter.

b. Flaked Stone (fig. 2)

The material is mostly vari-colored quartzite, though a more compact flint is represented. The projectile points are typical Upper Mississippi triangles. The workmanship is good, and in some cases exceptionally fine. The points average 24 mm. in length and 16 mm. in width. Only two notched points were found. One of these is of special interest as it is of the type found at Aztalan having side notch and square base.

There are nine instances of drills or perforations. One of these, found by Mr. Madsen, is exquisitely made of orange quartzite

Single flake knives are common, but to one who has hunted the workshops surrounding Flint Ridge, Ohio, they are quite

Figure 2

dissappointing, to say the least. Chipped stone knives are prtsent, some in the form of blades. One specimen bears a similarity to the so-called "stockton Curve." One large specimen of quartzite approaches the characteristics of a celt.

Scrapers are very much in evidence. These are mostly the thumb-nail type end scraper, though side scrapers are also present. Many show wear at the scraping edge. No notched scrapers have been found.

By far the most provocative artifact found is what may prove to be a flint effigy. It was found by Mr. Madsen while doing some exploratory digging. He was screening at a depth of about eighteen inches when along with fish bone and shell, his screen revealed this piece of brown compact flint. If this may be determined to be an effigy, the head, neck, and body are well formed, with chipping occurring, for the most part, on both sides of the object. The legs are only slightly indicated. The measurements for this artifact are 47 mm. length, 20 mm. width, and 8 mm. thickness.

2. Galena

Two widely separated chunks of galena were found. These do not show workmanship of any kind, but are heavily patinated.

3. Copper

No evidences of the use of copper have been found.

4. Shell

Mussel shell abounds upon the site indicating the likely use of mussels for food and the use of the shell for the tempering of pottery ware. The streight cut-off of edges, such as so marked at Shrake-Gillies, is observed here, though less prominently. Many species seem to suggest their use as implements, especially as spoons. two pieces are worked into almost disk form. One small piece shows five notches worked into its edge. One quite unusual specimen is worked into a perforator.

5. Bone and Antler

There is not a great abundance of bone of any sort upon the site, though excavation beneath the plow-line may eventually reveal a fair quantity. There are two small cut-bone

Figure 3

specimens, possibly for beads. There is one possible bone awl, and there is one instance of an antler flaker, broken.

6. Pottery (Fig. 3)

The pottery traits are widely and abundantly represented. Being previously familiar with the pottery traits of the Shrake-Gillies Site, I should say that they are substantilly the same on this site. Hundreds of potsherds examined will

Figure 4

bear this out, I believe. Having carefully re-read W. C. McKern's account of Orr Focus pottery in his bulletin entitled, "Preliminary Report on the Upper Mississippi Phase of Wisconsin," I should say that all of the characteristics of the Orr Focus pottery are present in the pottery of this site. Whether or not the frequent occurrence of well executed chevron designed on the inner or upper side of the flaring rim is unique to this site I am unable to say* (fig. 4). One motif of decoration apparently not previously reported

(* Inner rim decoration is characteristic of Lake Winnebago Focus. Ed.)

for this pottery is the curving line, forming a perfect spiral. Two potsherds seem to indicate circles in concentric designs (fig. 4). I have found several specimens bearing this design on this site. At the center of the design is either a single or small number of punctate impressions. The loop handles are both strap and fillet, but mostly the latter, ass judged by a limited number of specimens. Most of them bear either straight-line incised decoration, or punctates in straight line. The potsherds are, fortunately, in excellent state of preservation.

All evidences seem to indicate that this is a new and important extension of the Orr Focus, possibly bearing two special features: the usse of curved, spiral or concentric lines in pottery decoration, and the fairly large occurrence of discoidal stones. The significance of the flint effigy I am unable to determine.

THE WISCONSIN ARCHEOLOGIST

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Robert Leonard Hall

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A STYLE ANALYSIS OF WISCONSIN WOODLAND POTTERY

By

Robert Leonard Hall

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Kansas City, Mo

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

BACHELOR OF ARTS

at the

UNIVERSITY OF WISCONSIN

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Statement of Problem

The study of ceramics has in the past played an important role in Wisconsin archeology, both in cultural classification and interpretation. The results achieved suggest that further study of this industry may be profitable, for within certain limits, the utility of pottery as a cultural criterion is surely proportionate to the degre of refinement with which the pottery is analyzed. In Wisconsin, pottery analysis has remained largely at the level of broad descriptive categories. The terms now in common use (Woodland pottery, Lake Michigan ware, Effigy Mound pottery) are suggestive of broad cultural groupings though obviously within such groupings there exist numerous types distinguished by particular combinations of elements of form and surface modification and by variations in the treatment and composition of plastic and aplastic materials employed. The definition of these specific types represents one refinement in the study of Wisconsin pottery which should prove productive of further insights into the problems of Wisconsin archeology. There is, however, another approach which can be used, a stylistic analysis, conceived in somewhat broader terms than a typological approach.

The typological approach includes an examination of all aspects of pottery which can be considered or are available for consideration in setting up a type. A stylistic analysis, on the other hand, consists of an analysis in terms of broad styles of decoration, a correlation of motif and technique which relates specific pottery types within a broader scheme of description. The stylistic approach would appear to have several advantages. Decorative styles may cut across the boundaries of particular "types" and so relate them within a broader setting. Even beyond this, pottery styles may cut across the boundaries of foci and larger units of the taxonomic classification. In doing so, they provide a means of aligning the classification units temporally and indicating the spread of cultural traits. A stylistic analysis is particularly useful in such an attempt to understand some of the dynamic aspects of culture since, unlike the pottery type, it

is free of the influence of geographic factors which cause local variation in available clay and aplastic materials. In other words, the stylistic approach would differ from the typological approach in being at a different "level" of analysis.

The purpose of this study is to test the utility of this concept of pottery style through a study of Wisconsin ceramics. The need for such a study becomes evident since collections from sites outside of this state are seen to contain decorative styles similar to those within the state but in combination or association with ceramic elements not accompanying these styles in Wisconsin. It is these similarities in the decorative treatment of the many diverse pottery types that will be used to define "styles", spatially distributed over large or small areas of which Wisconsin is a part.

Because of the great scope of such a stylistic analysis research has been limited for the purpose of this study to include only pottery which in decoration is commonly accepted as being of Woodland affiliation or derivation. Also, a preliminary survey of study materials has shown that a style analysis of Woodland pottery can only have meaning if it is comprehensive enough areally to include the Great Lakes states and parts of the central and northern Great Plains. Within this area, however, pottery will be analyzed only when it appears to be a representative example of local pottery and when it is seen to participate in a style present in Wisconsin or to provide some perspective on particular Wisconsin pottery problems.

Introductory Background

In 1930 W. C. McKern proposed the term "Lake Michigan pottery" to refer to pottery from prehistoric Indian sites bordering and extending inland from Lake Michigan, when that pottery was of the variety which had been described in archeological literature of the East as Algonkian (McKern, 1930, pp. 469-70). Lake Michigan pottery was defined to include a sub-variety of Wisconsin pottery called the Effigy Mound type, earlier defined in terms of its repeated association with Effigy Mound culture. The more general term, Lake

Michigan ware or Lake Michigan pottery, permitted the classification of pottery similar to the Effigy Mound type without implying Effigy Mound culture association and without employing the eastern "Algonkian" designation with its explicit linguistic identification.

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Not classified within the Lake Michigan type is the angular-mouthed, "collared" Woodland pottery from Aztalan in Jefferson County. This variety is not referred to by terms implying cultural identification more specific than the Woodland Pattern relationship (McKern, 1931, p. 389). Also not classified within the Lake Michigan type was the pseudo-cord imprinted Clam River pottery from Burnett County. Clam River pottery is referred to either as simply Clam River pottery if it is from the particular culture of that name or by the most general term of "Woodland." Stylistically Clam River pottery is distinctively different from Wisconsin types available for analysis when McKern defined Lake Michigan ware and can now better be conceived as belonging to a widely distributed style extending northward into Manitoba and Ontario (Fewkes, 1937, fig. 11) and eastward to New England and Nova Scotia (Smith, 1929). It is probable that this style represents a separate development chronologically paralleling that of styles now apparent within the Lake Michigan category.

As well as for its geographical connotation there is some confusion surrounding the use of the term "Lake Michigan pottery" because of its implicit cultural identification with the "Lake Michigan Phase" of the Woodland Pattern. For this reason there will be an attempt in following sections to indicate the diverse cultural ties of the two decorative styles to be defined within Lake Michigan ware as it has been commonly conceived.

No less a problem than the reconciliation of pottery typology with culture taxonomy is that of reconciling material culture with tribal divisions linguistically defined. It has already been mentioned how the Lake Michigan designation succeeded "Algonkian" in reference to pottery earlier so described in the Wisconsin area. The term "Algonkian" as

a pottery reference was a carry-over from eastern archeology, where the term has now also given away to terms lacking linguistic connotations. Even broader in meaning than "Lake Michigan is "Woodland." Within certain contexts "Woodland" is used in the same sense as "Eastern Woodland" in referring to the culture area of that name. Strict archeological usage limits its meaning to the culture pattern of that name in the Midwest Taxonomic System—Woodland Pattern in contradistinction to Mississippi Pattern or Archaic Pattern. Woodland Pattern or Woodland culture replaced Algonkian culture or Pan-Algonkian culture in the terminology of archeology.

Substitution of arbitrary cultural names for those with linguistic meaning has since proved a justifiable step and one which obviated later conflict. Albert E. Jenks wrote in 1935 that field investigation in Minnesota had led to the conclusion that the eastern Dakotas possessed a Woodland culture (Jenks, 1935, pp. 15, 18-9). Certainly it would have been exceedingly embarrassing to archeology had it been necessary to announce that in Minnesota an **Algonkian** culture was associated with **Siouan** culture-bearers.

It remains a difficult task even now to speculate on the degree to which tribes, linguistically defined, other than those of the Algonkian stock shared in Woodland culture. Archeological evidence from northeastern Wisconsin has been interpreted to indicate that the Central Algonkian Menominee possessed a culture of Woodland affiliation (McKern, 1945, p. 118). Archeological evidence from Mille Lacs, Minnesota, and Clam River, Wisconsin, supports a tie-up of a Woodland culture with the Santee Sioux (Jenks, 1935, pp. 18-9; McKern, 1942, pp. 157-8). Here then are two entirely unrelated linguistic groups sharing Woodland cultures within the same state.

It is only when the culture history of a given linguistic group becomes of special interest that the inadequacy of the cultural record is made patent. Linguistic tie-ups with archeological cultures through the ethnohistorical approach are at best merely statements of relationships existing at a single

stage in history. There is a range of years varying from one to many generations over which a given relationship may remain fixed, but there is no reason inherent in nature for a language to remain associated with material culture or physical type as the latter are traced back into the ages. In justice it must be admitted that there is a measure of utility in identifying some phase of material culture or physical type with a language group so long as the limitations of the usage are fully understood and the application not misused. Jenks remarked in 1935 that Siouan affiliation in Minnesota with a culture long described as Alongonkian presented a problem with ramifications extending eastward into Wisconsin and New York (Jenks, 1935, p. 15). The problem arose actually not from the fact of Siouan affiliation with a Woodland culture but from the misuse of the term "Algonkian".

From the foregoing discussion it can be seen that while locally or in carefully defined context aspects of culture can be associated for ease of reference, this association may not hold as aspects are conceived more and more broadly and assembled into larger and larger schemes. It is especially relevant that it be seen that the distribution and ordering of style similarities in pottery need not and in practice does not coincide with the patterning of orders of classification involving language or entire complexes of material culture. Subsequent sections will illustrate the distribution areally, chronologically, and culturally of styles in pottery decoration recognizable in the pottery of cultures belonging to the Woodland pattern in Wisconsin.

Some Preliminary Definitions

In its application to Wisconsin Woodland ceramics the style concept can be seen to have great utility both as a means of ordering data in a purely objective analysis and as an aid in the interpretation of stages of Wisconsin pre-history as they are reflected in pottery. Isolated from its context pottery can help little toward this goal, but as a product of infinite variety and flexibility in decoration it is a valuable tag for the cultures with which it can be associated by systematic excavation and careful observation.

On the basis of similarities of technique and motif in decoration an analysis of the Woodland tradition in Wisconsin results in a breakdown into three principal styles. Of these, two are abundantly represented over a large area and the third limited to fewer sites within the state although participant with a style of extensive distribution. Because the two former styles correlate with distinctive stages in Woodland development in Wisconsin they are suggested as possible horizon styles, (1) an incised over cord-marked style representing an earlier prehistoric ceramic horizon and (2) a cord-decorated style marking a later prehistoric horizon. These temporal assignments result from a variety of correlations, including the stratigraphic positions and cultural associations of the two styles. Not at present included within a single chronological horizon, pottery of the third mentioned style is assigned to a northern Woodland decorative tradition characterized by both dentate and pseudo-cord techniques and because of its temporal duration is not considered a horizon style.

As used in this thesis reference to a pottery tradition implies a persistence of certain techniques and patterns in decoration over a long period of cultural development. In contrast, horizon style implies a similarity between constituent types within a particular time period or "horizon" with a consistency in the relative stratigraphic position of this style wherever it is encountered. The use of the word "style" alone does not imply any time relationship. These usages will be seen to be those current in Peruvian archeology, described by A. L. Kroeber (1944) and Gordon R. Willey (1945). The pottery "type", as conceived in Benjamin March's "Standards of Pottery Description" (1934), is an embodiment of a number of variables, viz. style of form, style of decoration, paste type, and surface finish, which can be conceived separately, thus facilitating a concept of a spatial or temporal distribution of pottery types related through a similarity of decoration alone. An understanding of this concept of the type is prerequisite to an understanding of the purpose in this paper of an analysis of style of decoration.

The Northern Decorative Tradition

In 1932 Bolko von Richthofen described certain similarities between pottery of northeastern North America and pottery of the neolithic north Eurasian **Kulturkreis** (1932). What he noted was what would be described in the terminology of this paper as a style of decoration, though certainly much more broadly conceived than any which follow. These similarities he included in his comb-stamped and punctate ceramic styles **(kamm- und gruebchenkeramischen Style)**. While there is no time during the present discussion for a comprehensive revaluation of the evidence for or against Asiatic relationships with North American pottery, it is nevertheless interesting to note the style similarities observed by Richthofen for the northeastern North American geographic area, observations concerned chiefly with decoration by dentate, i. e. tooth- or comb-like impressions **(kammstempelverzierung)**. Dentate stamping was observed for pottery belonging to the "eastern Atlantic group", Holmes' middle and northern Atlantic slope groups (Holmes, 1903), and specifically to pottery termed "early Algonkian". A second source of dentate stamping was given as pottery of the Hopewell culture, and Richthofen suggested that this occurrence might have resulted from contact with Algonkian groups or at least with influences ultimately derived from the northwest of North America. More recently James B. Griffin has been explicit in relating dentate stamping in part to a northern pottery style spread from "Minnesota to the Atlantic" (1946, p. 58).

Closely correlated with this northern Woodland distribution of dentate stamping and probably generically related to it as a style is the "pseudo-cord" technique of decoration which defines the first style to be proposed in this paper. Pseudo-cord decoration has at various times been described by a variety of terms, ranging from those confusing it with dentate stamping proper to those confusing it with single cord impressions. It has some of the characteristics of both. Positive impressions in plasticene clay reveal that the typical pseudo-cord impressions are probably impressions of cord-

wrapped blades or paddle edges and of twigs, the type of foundation and whipping revealing differences in technique within the style as a whole. The negligible pitch or lean in the windings in some impressions suggest that the edge of a cord-wrapped paddle had been used, a possibility supported somewhat by the correspondence in spacing with windings on the paddle as revealed in the over-all body marking on some vessels. Other impressions are more obviously those of slender twigs wrapped with strips of bark or other non-twisted material (Smith, 1929, pl. IX). Positives from northestern Pennsylvania sherds in the Wisconsin State Historical Museum collections and from sherds from the Gibson rockshelter in northeastern Wisconsin show clearly the sharp edge upon which a non-twisted cord was wrapped. It is wrapped edge impressions of this sort which resemble oval dentate stamping in the case of the Pennsylvania sherds and in the case of the Wisconsin sherds, impressions of a dentate stamp notched from each side, the teeth remaining incompletely separated (Hall, Linck, Wittry, 1944, plate and pp. 93-4).

Wisconsin is within the area of distribution of the pseudo cord style to the extent that the Clam River Focus in northwestern Wisconsin and a number of sites from surface surveys in both northwestern and northeastern Wisconsin produce varieties of this affiliation. Aside from that found in the Clam River excavations the only pseudo-cord decorated pottery found in Wisconsin by excavation is a rim included in the fill of mound 3 of the McClaughry Group, Marquette County. [1]

The characteristic Clam River decoration is of non-twisted fiber or sinew-wrapped twigs and paddle edges on a partly smoothed, cord-marked surface. Diagonal or vertical elements are platted around the rim in bands over either alternately plain and hatchured triangles in panels or continuous horizontal impressions or a combination of these. Lip surfaces are usually flat and impressed with wrapped twigs oriented radially to the orifice or diagonally to its radii. The

[1] Collections of the Milwaukee Public Museum, Milwaukee, Wisconsin.

interior of the rim is decorated with vertical or diagonal wrapped paddle edge or twig impressions or left unmodified. Ornamentation does not extend below the neck. Simple dentate stamping and comb training occur on several sherds from the mound fill.

At the Heins Creek village site on the Lake Michigan shore in the Wisconsin Door County Peninsula a variety of pottery occurs bearing the longitudinal lip impressions distinctive on lips of rims illustrated for the Owasco Aspect of the Woodland Pattern in New York.[2] Although this element is executed in only two instances with a pseudo-cord technique at the Heins Creek site and otherwise with a single cord circling the orifice, still the interior rim decoration is wrapped-edge impressed as on the Owasco vessels, a feature contrasting sharply with interior treatment in the remaining two woodland styles to be described for Wisconsin.

A sample of sherds from the extensive Lily Bay site on Lake Michigan in Door County provided sherds with the lip and interior rim treatment mentioned above and also a single sherd with the short, linear, cord-wrapped edge stamping resembling in technique but not in pattern that from Owasco sites (Ritchie, 1944, Pl. 20, No. 6) and from the Rainy River region in northern Minnesota.[3]

An important distinction should be made between that cord-wrapped stick technique described here as pseudo-cord decoration and the broad, cord-wrapped dowl (or possibly thick paddle edge) impressions appearing in the incised over cord-marked style as occasional lip decoration and as a more important element in some Hopewell associated and other Woodland types. Most characteristically the pseudo-cord impressions are very narrow because of the thin blade or paddle serving as a foundation for the cord windings, and often the foundation appears as a thin impression running longitudinally with the stamp. Besides the general resemblance of

[2] Ritchie, 1944: Pl. 17, no. 5 (Castle Creek); Pl. 18, 3-6 (Castle Creek); Pl. 19, 3 (Canandaigua); Pl. 34, 3 (Canandaigua).

[3] Sherds in the collection of the State Historical Museum, Madison, Wisconsin.

PERIODICAL DEPT

pseudo-cord to dentate decoration, the pseudo-cord elements are also often organized in many of the same patterns found in dentate decoration. Since the appearance of either of these two techniques on vessels seems to be mutually exclusive, [4] each represents a style of decoration within a northern Woodland decorative tradition. And, although a pseudo-cord style has been characterized for Wisconsin, a dentate style has not because of the incomplete information regarding relationships of this technique on Wisconsin sites, much dentate stamping having long been simply assigned a Hopewell provenience in the areas where it is most common in the state.

In New York pseudo-cord decoration appears in early Point Peninsula horizons as the type Point Peninsula Corded (Ritchie, 1949, p. 102). This type increases in frequency throughout the entire temporal range of the Point Peninsula Aspect (Northeastern Phase Woodland) and serves as a prototype for all succeeding pseudo-cord types in the Owasco Aspect (ibid.), at which stage the pseudo-cord style has almost completely replaced the dentate style. Ritchie and MacNeish suggest that Point Peninsula Corded may have evolved from the combined concepts of dentate stamping and the use of the cord-wrapped paddle (ibid.).

In both Minnesota at Cannon Junction (Brower, 1903, p. 58) and across the Mississippi at Bay City in Pierce County, Wisconsin, [5] pseudo-cord decoration occurs in surface collections from sites producing as well thick, dentated Hopewellian pottery, including some with zoned decoration. Excluding those with zoned stamping, it is sometimes difficult to separate sherds which would belong within a Hopewell complex from those belonging to the Woodland pseudo-cord and dentate styles as they appear, for instance, at Mille Lacs, Minnesota, in the aspect of that name. At both Mille Lacs and Bay City both techniques occur over a smoothed or partly smoothed surface, and in New York a Point Peninsula Corded vessel (a pseudo-

[4] This is so in the Mille Lacs Aspect in Minnesota (Wilford, 1949) and is the basis of numerous type distinctions in New York (Ritchie and MacNeish, 1949).

[5] Sherds in the collections of the State Historical Museum, Madison, Wisconsin.

cord type) does appear in one instance as a Hopewell type (Ritchie and MacNeish, 1949, p. 121). Obviously the exact position of Hopewell in Wisconsin ceramic horizons can be determined only after careful typological analysis and seriation, as has been done for the pre-Iroquoian pottery of New York state.

It is probably of some significance that one variety represented in the Bay City collection is a "double cord-marked" type, similar in this respect to Vinette 1, a New York Woodland variety which is the exclusive type of the New York Hopewellian culture (Ritchie and MacNeish, 1949, p. 100). This vertical exterior and horizontal interior cord paddling occurs at Bay City with the frequent additional use of fine dentating, most commonly as simple vertical impressions on interior and exterior rim surfaces below the lip edge. Vinette 1 is undecorated.

It is thus apparent that the pseudo-cord and dentate styles represent a widely disseminated northern Woodland decorative tradition, the pseudo-cord probably developing out of the dentate style during Point Peninsula times and replacing it during the Owasco period at least in New York. In New York both Vinette 1 and Point Peninsula Corded occur as Hopewellian types at one time in their history, [6] while in Wisconsin related types occur together at least in surface collections from one northeastern Wisconsin site together with more typical (zone-stamped) Hopewellian sherds.

The failure to make a distinction between the several Woodland decorative styles in Wisconsin has in the past been the cause of considerable misunderstanding of the relationship of Wisconsin ceramics to those of the East. This is attested to by Frank M. Setzler's remark that pottery from Lake Michigan sites is "identical with ware from numerous sites of the eastern Algonkian groups" (1940, p. 277). Without the intent of criticism of Mr. Setzler several things can

[6] The authors of **Indians before Columbus** note that New York Hopewell seems to be a fusion of Ohio Hopewell ceremonial concepts and Middlesex (Woodland) Focus village culture (Martin, Quimby, Collier, 1947, p. 250).

now be pointed out which were not apparent earlier.

First, it is pottery of the pseudo-cord style and not pottery from Wisconsin Lake Michigan Phase sites which has the strongest affiliation with eastern Woodland ceramics as a whole in the matter of decoration. Lake Michigan pottery as first defined included pottery now placed almost excusively within the incised over cord-marked and cord-decorated styles. Pottery of the Clam River Focus, within the pseudo-cord style, was not available for inclusion in the first Lake Michigan analysis, and the focus itself has not been placed in the Lake Michigan Phase but, rather, left unclassified (McKern, 1945, p. 118).

Second, in piedmont and tidewater Virginia, where cord-decorated types resembling Lake Michigan types do occur, [7] the possibility remains that they may be Siouan and not Algonkian. The historical location of the Manahoac and other eastern Siouan groups within the Virginia enclave of the distribution of the cord-decorated style makes it impossible to assign this group of Lake Michigan-like types to eastern Algonkians on a basis of distribution, and where Algonkian types have been recognized in the East they are unlike Wisconsin Lake Michigan types. The type Potomac Creek Cord-marked from the Algonkian village of Pottowomeck near Washington, D. C., is in the pseudo-cord style (Manson, MacCord, Griffin, 1914, p. 411), and at the Bell-Philhower site in Sussex County, New Jersey, Ritchie has identified the Algonkian Munsee with an Owasco Aspect culture including pseudo-cord ceramics (Ritchie, 1949, p. 195).

Given the foregoing account of more recent relationships of the pseudo-cord style it is but a short step to offer con-

[7] See: Holmes, 1903, Pl. CXXXIII, middle sherd on left side, New River Valley, Virginia. This rim is identical in form and decoration to a Wisconsin type of limited distribution. It is different from other collared rims illustrated by Holmes from Virginia in lacking a pronounced notching beneath the collar and in being decorated by singly impressed cords rather than by a pseudo-cord technique. See also: Bushnell, 1935, Pl. 13, Fig. 1. This group of sherds from the Jerrys Flats site on the Rapidan River in Virginia includes some cord-decorated rims as well as those with pseudo-cord decoration.

jectures as to remoter relationships, relationships chiefly involving the dentate Woodland style. Ritchie has indicated that rocker and simple dentate stamping occurs in New York as early as the Brewerton Focus of the Laurentian Aspect (Ritchie, 1944, Pl. 114). In a manuscript cited by Ritchie Albert C. Spaulding identifies basic New York Laurentian culture with a widely distributed assemblage of artifacts in the northern coniferous forest belt of the old and new worlds, this basic culture being modified in the American northeast by Dorset Eskimo and Lamoka (New York Archaic) influences (Spaulding, n. d.). Spaulding also suggests the upper Great Lakes area as an area alternative to the southeastern United State as a source of Woodland ceramics.

It should probably not be overlooked that in a collection of Asiatic sherds available for examination at first hand [8] the dominant technique was a dentate stamping which on a number of individual sherds was strikingly like some Minnesota and New York finds in the matter of arrangement. The similarity in decoration was accompanied by a similarity in rim form, lip treatment, and the punctating piercing or nearly piercing the vessel wall below the lip. No cord or pseudo-cord decoration or cord-marking was noted on the Asiatic sherds although cord-marking is on record in eastern Asia from China, [9] Kamchatka (Quimby, 1947), Mongolia (McKern, 1937, p. 142), and Japan (DeLaguna, 1947, p. 20). The fact of the northern distribution of the pseudo-cord style and

[8] Collections of the Milwaukee Public Museum, Milwaukee, Wisconsin.

[9] The use of a cord-wrapped paddle in building up large pottery vessels by the paddle and anvil technique is known from early ceramic horizons in China and is used to this day in Northern China. See: Wu, 1938, pp. 37-8 and figs. VIII, IX, XVII, XXXI, LXIV, LXV, XLVI (a duplicate number on p. 63), and LXVII.

This technique of manufacture is that by which probably all Wisconsin Woodland pottery was made. There is no evidence of the use of coiling in Wisconsin, and cord-wrapped paddle marking has been found on contact surfaces between slabs of clay used in building up the vessel walls by a paddling technique. For a contemporary account of the paddling dling technique used by New England Indians see: Prince Society, 1878, note 170. For a photograph of a carbonized wooden paddle with cord wrapping found archeologically see: Carpenter, 1949, fig. 3.

its probable derivation from a northern dentate style appearing in late archaic times with non-ceramic associations pointing toward north Eurasia combine to provide a springboard for speculations concerning the origin of the decorative tradition as a whole. That is, the evidence adds weight to the hypothesis for the Asiatic origin of the Woodland Pattern proposed by McKern (1937) and lends support as well to Richthofen's inclusion of some northeastern North American Woodland ceramics in his broad north Eurasian **Kamm- und Gruebchenkeramik** category as a pottery ultimately Asiatic in derivation.

The Incised Over Cord-Marked Style

Though designated an incised Woodland style, incising is but one of several techniques employed within the style of this name. Dowel punching, bossing, finger nail impressing, two-finger pinching, pinching with one nail alone, and the impressing of a large cord-wrapped dowel (or thick paddle edge) all occur. Nevertheless, incising makes its appearance so regularly that it is used here as a diagnostic feature of this style, and since a style defined only by the presence of incising would have little value, the style is limited to decoration by incising over a background marked by a cord-wrapped paddle.

Decoration within the style covers a broad band from the lip to the shoulder and often below, making it difficult to find a representative vertical section of the decorated area on any one sherd. Lip decoration occurs, but interior rim decoration is almost completely absent. The broad band of decoration common to the incised style is well suited to the vertical sided vessel form known to correlate with this decorative style in Wisconsin. Conoidal bottoms and a minimum of neck constriction is typical.

Incised decoration occurs as a repetition of parallel, diagonal lines in a band, as a series of continuous horizontal lines circling the vessel, or as a more complicated chevron arrangement. Pinch marks usually occur as single or double rows banding the vessel, but clear impressions of the finger nail alone, although less common, occur in other arrange-

ments, e. g. oriented horizontally and in vertical columns, or oriented horizontally and made contiguous to form a single, fine, sinuous, incised line.

The general pattern within the style is a repetition of decorative elements as a band around the vessel and a stacking of bands, techniques varying from band to band. Thus, one vessel may have the following patterning of its decoration.

(a) cord-wrapped dowel impressions on the lip
(b) pinching around the mouth below the lip
(c) deep dowel punching beneath the pinching.
(d) diagonal incising around the neck.
(e) a second band of pinching.

The following is a description of incising over cord-marked sherds in the State Historical Museum from a village site at New Amsterdam, fifteen miles south of Sheboygan in Sheboygan County, Wisconsin.

Surface finish.

8 body sherds smoothed
100 body sherds cord-marked.

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108 body sherds

Lip decoration.

20 lips plain
1 lip impressed with unwrapped dowel held radially to the orifice
1 lip impressed with broken end of bone or stick.
3 lips notched with fine edged instrument.
4 lips impressed lightly with cord-wrapped dowel held radially to the orifice.
2 lips impressed deeply with wrapped dowel held radially to the orifice.
31 rim sherds

Interior rim decoration.

None.

Exterior rim decoration.

Technique: pinch marks; deep punctation almost piercing the vessel wall; medium and broad incising or trailing with the rounded

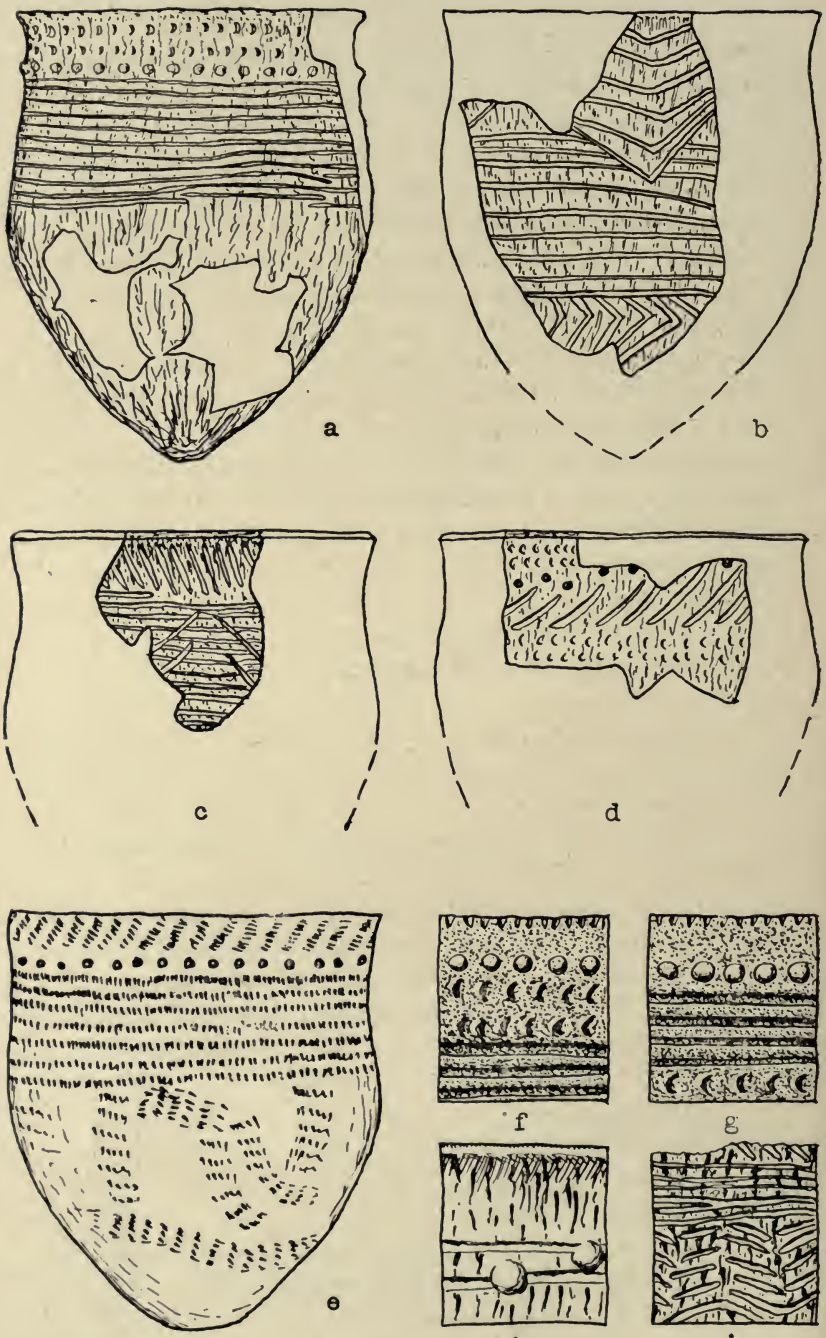


Plate I

end of a stick, the marks left most commonly deep enough only to erase the cord marking. Pattern: deep dowel punctation in a single series around the neck; pinch marks in either single or double series around the neck, beneath the lip or just above the shoulder; right or left slanted incised lines repeated around the neck alone or in combination with parallel horizontal lines.

There has not until recently been any attempt to identify this style in Wisconsin as being culturally distinct from the cord-decorated style. Recent excavations of the University of Wisconsin in Dane County indicate an early Woodland assignment of about the period of Wisconsin Hopewell and possibly earlier. Despite its appearance in the fill of effigy mounds and on adjacent village sites, pottery with this decoration has not been found as grave goods with effigy mound burials and probably represents an earlier Woodland horizon. The incised style was similarly absent as funerary vessels in

EXPLANATION OF PLATE I

(a) Restored vessel decorated in the incised over cord-marked style with incising, bossing, and pinching. Marquette County, Wisconsin. Collections of the Milwaukee Public Museum.

(b) Projected restoration of a vessel decorated in the incised over cord-marked style. Trempealeau County, Wisconsin. Collections of the Milwaukee Public Museum.

(c) Rim section of a vessel decorated in the incised over cord-marked style. Sheboygan County, Wisconsin. Collections of the Milwaukee Public Museum, specimen number 45555 | 12505.

(d) Rim section of a vessel decorated in the incised over cord-marked style with incising, deep dowel punching, and pinching. Two Rivers, Manitowoc County, Wisconsin. Collections of the State Historical Museum, Madison, Wisconsin.

(e) Utilitarian Hopewell pottery, Trempealeau culture mounds, Trempealeau County, Wisconsin. Collections of Milwaukee Public Museum.

(f) Incised, bossed, and pinched decoration on pottery from the Alexander Mound, Alabama. Fowke, 1928, plate 84.

(g) Incised, bossed, and pinched decoration on pottery of the type Alexander Incised from a site of the Tchefuncte Culture, Louisiana. Ford and Quimby, 1945, Plate 7.

(h) Incised over cord-marked pottery of the type Black Sand incised (Cole and Deuel Type 1) from the type site of the Black Sand culture, Illinois. Cole and Deuel, 1937, plate I, number 3.

(i) Same as the above. Cole and Deuel, 1937, plate I, number 5.

mounds excavated by S. A. Barrett and Alanson Skinner in Shawano and Oconto counties (1932), though occurring as village refuse, probably from an earlier occupation.

The incised over cord-marked style has a nearly statewide distribution and probably figures importantly in early Woodland history. The Wisconsin State Historical Museum has collections containing this style from Vilas County near the Michigan state line in northern Wisconsin, from Crawford and Pierce counties along the Mississippi River, from Sheboygan and Manitowoc counties on Lake Michigan, and collections from numerous sites in Dane, Columbia, and Sauk counties in southern Wisconsin. The southern limit of of distribution includes the Black Sand Incised of central Illinois, where it appears as one of the earliest pottery horizons. There, in Fulton County, pottery of the Black Sand culture is the only pottery found in a camp site stratigraphically earlier than a superimposed Hopewell mound, F°77 (Cole and Deuel, 1937, p. 199).

Although types have not yet been defined within the style in Wisconsin there is a difference already to be seen between the New Amsterdam pottery and that of Black Sand. Bossing is known from two rims of the Black Sand type while it is absent from the New Amsterdam series analyzed. Here it is replaced by dowel punching. More like Black Sand incised than New Amsterdam incised pottery is that in a collection from Lake Monona, Dane County, Wisconsin. Bossing occurs here together with incised motifs and rim forms very similar to those of the Black Sand type.

Less like Wisconsin incised over cord-marked is pottery of pinched and incised decoration from the early Alexander culture of southern Tennessee and northern Alabama. With the possible exception of one sherd apparently incised over cord marking (Fowke, 1928, Pl. 84) pottery illustrated from the Alexander mound by Fowke is incised over smoothing. There is a distinct similiarity between these Wisconsin and southeastern potteries in the banding of bossed nodes, single and double rows of pinch marks, and parallel, horizontal, linear incisings on individual vessels. This is the patterning of

elements on a Wisconsin Marquette County vessel now restored and on exhibit in the Milwaukee Public Museum. The Alexander decorative theme most notably absent is zoned decoration, which is not known for the incised over cord-marked style.

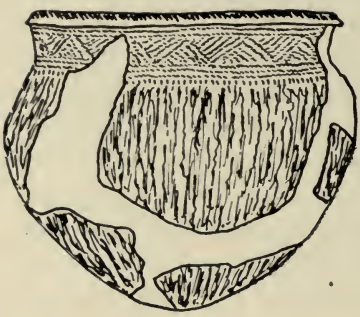
All in all it is impossible to make any but archeological associations with the incised style. That is, no historical, tribal associations are known, as are for the other two Woodland styles treated in this paper.

The Cord-Decorated Style

The most distinctive feature of the cord-decorated style is the use of twisted cords imprinted individually on a cord-marked or smoother plastic surface to produce decoration. Other decorative techniques are only of minor importance. These include cord-wrapped dowel stamping, trailing (rare), punctating, and deep dowel punching. Undoubtedly these minor traits will figure in any complete type analysis, but the style can be considered apart from the secondary features since they occur only as embellishments in ornamentation otherwise rather fully executed in cord.

Cord used in cord decoration is of several varieties of manufacture, but since no instance of the use of braided cord of three ply and only one instance of four ply have been encountered by the writer in plasticene positives of cord impressions on Wisconsin pottery, only twisted cordage need be described. Clear impressions reveal that strands of multiple fibers were quite commonly used in twisting cords, not preventing the possibility, of course, that skin thongs or sinews may have been used as strands where impressions do not specifically reveal a fibrous structure. Historically cedar bark and nettle fiber have been used in making yarns for fiber bags while basswood and elm bast has provided material for twisting double strand cords in the stronger cordage.

A true twisted cord has two characteristics, the twist of the individual strand around its own axis and the spiraling of strands around one another as a counter-effect of the twist of the individual strands. If a length of basswood fiber is stretched out, one end in each hand, rotating the right end of



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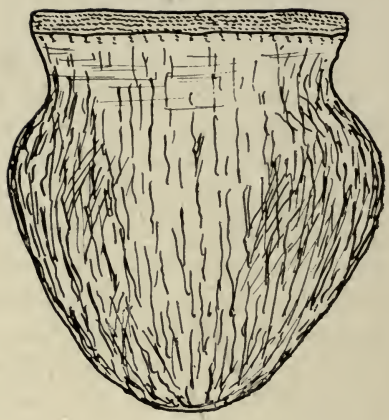

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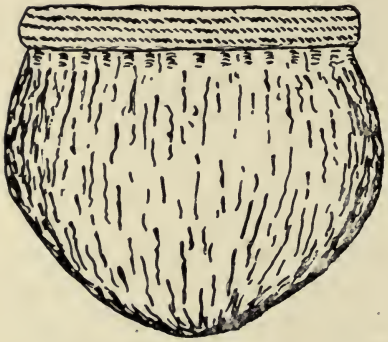

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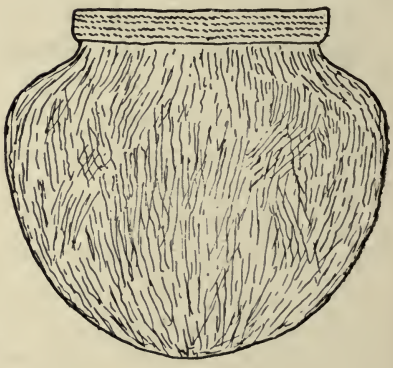

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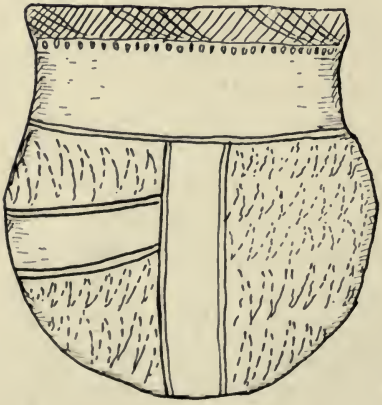

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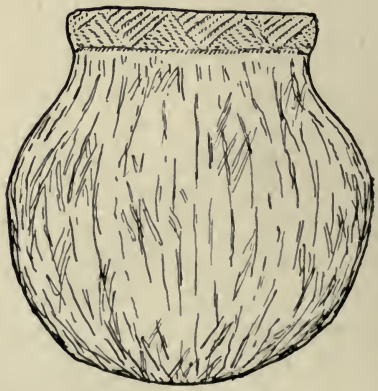


f

Plate II

the strand clockwise (to the right or up and out) will impart a clockwise "twist" to the strand. If the twisted strand is then allowed to double itself in the middle, it will spontaneously "fly" together into a double strand cord. Each can be "twisted" by itself but must "spiral" around another strand. Spiral is always counterclockwise if twist is clockwise and vice versa.

Cord made in the above manner would be described as "simple double strand cord". If a simple cord is again twisted and allowed to double itself it will form a "doubled cord". This is the variety found most commonly as impressions on Wisconsin pottery.

In analyzing cord-decorated, Two Rivers, Wisconsin, pottery from the H. P. Hamilton collection in the Wisconsin State Historical Museum rimsherds were arbitrarily divided into three varieties on the basis of area of decoration. Type 1 includes all rimsherds with cord decoration both on a small collar or rim fold and beneath it in a band one and one half to three inches wide on the neck. Type 2 rims have cord decoration confined to the collar. Rims of type 3 are straight and uncollared with decoration on the neck up to the lip. Future investigations may result in a breakdown on the basis of factors other than area of decoration, but in the meantime there is valid reason for considering these categories to have cultural significance. Pottery with type 1 decoration is the

EXPLANATION OF PLATE II

(a) Restored vessel in the cord-decorated style from an effigy mound near Fond du Lac, Wisconsin. Collections of the Milwaukee Public Museum.

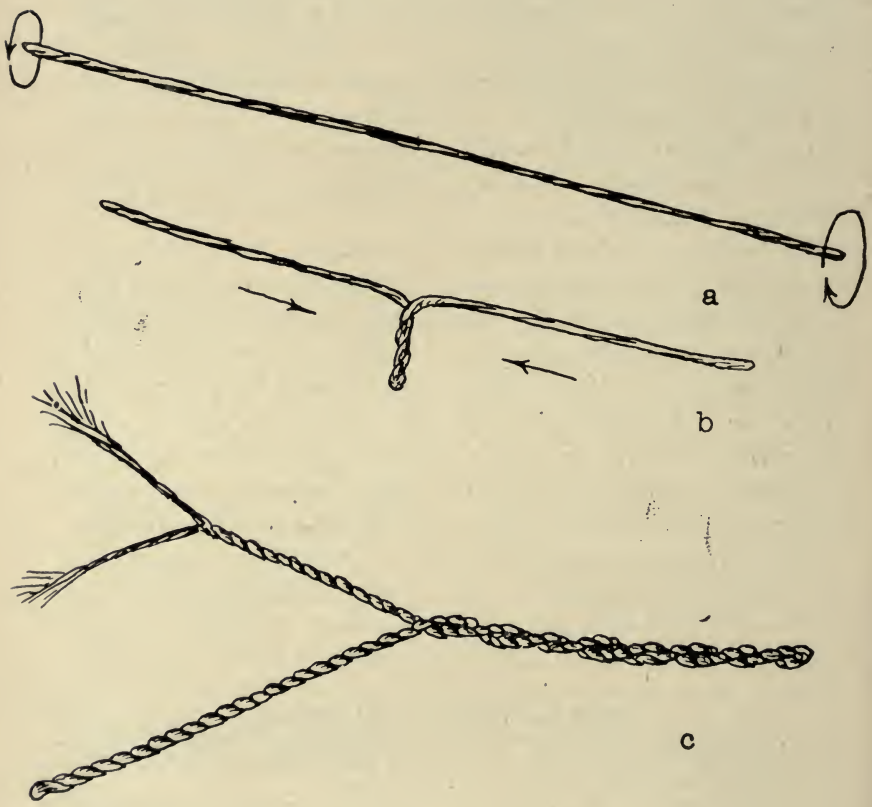
(b) Vessel in the cord-decorated style from an egg-shaped mound, Green Lake County, Wisconsin. Collections of the Milwaukee Public Museum. McKern, 1928, plate LI, figure 2.

(c) Restored vessel in the cord-decorated style from an effigy mound in the Nitschke Group, Dodge County, Wisconsin. Collections of the Milwaukee Public Museum. McKern, 1930.

(d) Vessel in the cord-decorated style from the Sweetwater, Nebraska, site of the Upper Republican Aspect. Champe and Bell, 1936, plate I.

(e) Vessel of the "ornate" Hopewell variety from a Trempealeau culture mound, Vernon County, Wisconsin. Collections of the U. S. National Museum.

(f) Vessel drawn to illustrate one variety of pottery of the Mandan tribe, North Dakota. Vessel form and cord decoration adapted from Will and Spinden, 1906.



EXPLANATION OF PLATE III

(a) Length of basswood bast fiber drawn to illustrate the "clockwise twist" of a "strand".

(b) Clockwise twisted strand (above) allowed to double in its middle to form a "simple, double strand cord" with "counter-clockwise spiraling strands."

(c) Simple, double strand cord (above) twisted counterclockwise and allowed to double at the middle to form a "doubled cord." It is this doubled cord that is typical of cord used in executing cord decoration on most Wisconsin pottery.

only Woodland type at the Point Sable site in Brown County and at a small site east of Red Banks in the same township. Type 2 decoration is found in abundance at Aztalan in Jefferson County while two months' excavation at this site in 1949 by the Wisconsin Archeological Survey produced only one sherd of type 1. Type 3 decoration is abundant at Fulton in Rock County while type 2 is absent and type 1 decoration occurs on one sherd. Cord varieties found on the types are shown in table I.

It can be seen from the table that the double cord type is decidedly in dominance, occurring with a frequency varying in ratios of from 2.4:1 to 5:1 with the simple cord type. It is also apparent that the clockwise strand spiral is dominant over the counterclockwise in ratios of from 1.3:1 to 3.2:1. The

TABLE I

Pottery of Type 1 Decoration	Strand c.	Strand w.	Spiral c.	Spiral w.	totals
doubled, double strand cord	10	——		20)	30
simple, double strand cord	5			1)	6
simple, triple strand cord	0			0	0
totals	15			21	36
Pottery of Type 2 Decoration					
doubled, double strand cord	10))			19	29
simple, double strand cord	7))			3	10
simple, triple strand cord	0			0	0
totals	17			22	39
Pottery of Type 3 Decoration					
doubled, double strand cord	2			10	12
simple, double strand cord	2			3	5
simple, triple strand cord	0			0	0
totals	4			13	17

Table 1. Analysis of cord on pottery of three varieties within the cord-decorated style at the Two Rivers, Wisconsin, site. [10]

[10] Figures within boxes indicate the number of vessels represented in the rim collections having impressions of cord of only one type, ninety-two vessels in all. Lines between boxes indicate vessels with two cord types present, accounting for four additional vessels.

frequency distribution of cord types between decorative types 1 and 2 at this site is remarkably close, perhaps indicating that types 1 and 2 at this site were alternative varieties within the ceramic industry of one group. The frequency distribution of cord types in the third group of pottery analyzed, type 3, does not match that of either type 1 or 2 closely, though revealing the same trends in distribution to a more exaggerated degree—a higher percentage or doubled cord types and a higher percentage of clockwise spiraling strands on either simple or double cords. Because the sampling of type 3 rims is so small more variation from a normal distribution is to be expected and a comparison cannot really be made with types 1 and 2. It is to be noted, however, that there is only a quantitative fluctuation in cord type distributions between the three decorative types: the same cord types appear in all three decorative types; none is characterized by the presence of triple strand cords or the absence of doubled cords, as is the case in a Mandan series analyzed.

As with the pseudo-cord style in Wisconsin, decoration in the cord style appears both on the interior and exterior of the rim and is largely confined to the neck in band no more than than three inches wide. This limited area of decoration may be influenced by vessel form, since whole vessels available for both styles have more pronounced shoulders and more constricted necks than found associated with the incised over cord-marked style with its decoration over much of the body area. The "collared" rim provides an excellent example of the influence of vessel form in localizing decoration.

Unlike Mandan decoration, in Wisconsin cord is never used in curvilinear motifs but always as straight line diagonals, verticals, and horizontals. These may be in many combinations, opposed diagonals, alternating horizontals and verticals, continuous horizontals, and repeated diagonals or verticals. Intersecting diagonals are rare. These motifs may appear in combination, sometimes with minor decorative uses of cord, so that it would be possible to find the following:

(a) interior rim, right to left diagonals

(b) rim collar, right to left diagonals
(c) below collar, row of knot punctations
(d) neck, left to right diagonals
(e) border of short cord-wrapped dowel impressions

Decoration using singly impressed cords is found historically in North Dakota among the Hidatsa (Siouan) and Mandan (Siouan) and in South Dakota among the Arikara (Caddoan) and Cheyenne (Algonkian) (Strong, 1940). In Nebraska it is found at the Sweetwater site of the Upper Republican culture (Champe and Bell, 1936), possibly prehistoric Pawnee (Caddoan) (Strong, 1935, p. 296), while in Illinois the Maples Mills Focus (Cole and Deuel, 1937) and in Wisconsin the Effigy Mound culture (McKern and Ritzenthaler, 1949) produce cord-decorated pottery. It is these sources which contributes most heavily to the peripheral northwestern pottery area defined by Holmes (1903). Outside of this area true cord decoration occurs in piedmont and tidewater Virginia, as mentioned in a preceding section.

In Wisconsin the cord style is very widely distributed, with collections in the State Historical Museum coming predominantly from south and east of the Wisconsin River. If this sample proves to be statistically reliable, this distribution would exclude any historic Dakota Sioux association and strengthen an Algonkian association. As mentioned, one Algonkian tribe, the Cheyenne, made cord-decorated pottery within historic times, so Wisconsin Algonkians may very easily have done so also. Not enough is known of any of the archeological cultures of the eleven Algonkian tribes one time residing in Wisconsin to comment on an Algonkian association with the cord-decorated style. McKern has demonstrated that Algonkians are unlikely candidates for the title "Effigy Mound Builders",[11] so unless the Algonkians had brought cord-decorated pottery practice with them from

[11] By a statistical comparison McKern has shown that the Chiwere Sioux (Oto, Ioway, and Missouri) and the southeastern Sioux (exact tribes unspecified have burial traits conforming more closely to those of the effigy mound builders than do those of other possible candidates (Algonkian, Dakota Sioux, and Winnebago. See: McKern, 1928, p. 285.

Michigan and elsewhere, they would have had to receive it by acculturation—from the builders of the effigy mounds (or their descendants, who did practice cord-decoration, as witnessed by the furnishing of their graves with pottery of that style.

Outside of the Wisconsin area cord is used at the Sweetwater, Nebraska component of the Upper Republican Aspect in executing motifs characteristically incised at other sites of that aspect. 80% of all decorated, collared or "braced" rims at Sweetwater were cord-decorated with a 20% minority incised. The resulting cord-decorated type is in many aspects quite close to the decorated Woodland variety at Aztalan, Wisconsin, previously described as being like Two Rivers type 2.

An interesting correlation was noticeable in the decoration at Sweetwater and at the Two Rivers site. Of ninety-two cord-decorated vessels (represented by rims) at Two Rivers 61% were imprinted with double strand cords (simple or doubled) with strands spiraling clockwise, nearly matching the 60% figure for this factor at Sweetwater. At the Double Ditch Mandan site near Bismarck, North Dakota, only 8% of ninety-four cord-decorated rims bore impressions of double strand cords with clockwise spiraling strands. [12] On this evidence direction of twist and spiral may eventually be shown to have some cultural significance.

Doubled cords are absent from the Mandan series analyzed and are apparently absent at Sweetwater. [13] Although a widespread practice in Wisconsin prehistorically, cord doubling is not known from any materials in the Wisconsin State Historical Museum collected from Wisconsin Indians by contemporary Europeans. The Meskwaki or Fox knew the practice at least after their arrival in Iowa (Smith, 1928, p. 269), but its history in this tribe may have to await an identification of the Fox archeologically.

Moving still farther from Wisconsin the combination of cord decoration over cord marking is found in northwest-

[12] Collections of the State Historical Museum, Madison, Wisconsin.
[13] All cords shown in the Sweetwater report are simple, double strand cords. See: Champe and Bell, 1936.

ern Kamchatka, Siberia (Quimby, 1947), in an area to which much attention has been given in trying to find Old World antecedents of the Woodland Pattern. Though too little is known archeologically of the region between Siberia and Wisconsin to suggest the manner in which a Wisconsin decorative style could have an Asiatic derivation, it is a similarity too great to overlook. It is the best indication so far of the ultimate source of the cord-decorated style. [14]

The following can be said in summarizing the preceding coverage of the cultural relationships of the cord style.

(1) Cord-decorated pottery is found as burial goods in effigy mounds, within the fill of effigy mounds, and on camp sites neighboring effigy mounds. It is also found beyond the distribution of the effigy mound.

(2) Cord decoration appears historically and prehistorically on numerous pottery types in the Plains area. In some cases

	strand	spiral
	c. c. w.	c. w.
Double Ditch Mandan	*38%	8%
Sweetwater, Nebraska	40%	60%
Two Rivers, Wisconsin	39%	61%

* 4% of all cord-decorated rims showed triple strand cords.

Table 2. Analysis of direction of strand spiral of double strand cords (simple or doubled) at three sites as revealed in impressions on cord-decorated rims.

[14] It has been suggested (Wittry, 1949) that cord decoration may be partly a secondary development following upon a more utilitarian use of singly imprinted cords. A cord wrapped several times around the vessel rim may have assisted in the shaping of the vessel form or in preventing cracking during drying. Cord decoration illustrated by Quimby (1947) from Kamchatka is all horizontal and could represent either evidence of this practice or a decorative theme derived from the practice. Such a function of cord in pottery manufacture would be analagous to the "string moulding" technique known from the lower level of the site of Lung-Shan in Shantung province, China (Wu, 1938, pp. 62-63). In this process the resulting cord impressions are horizontal and may be distinguished from the vertical impressions left by the cord-wrapped paddle, as seen on examples of "cord-marking".

cord decoration may have become incorporated into already existing types, and elsewhere direct Woodland antecedents may be found.

(3) In the Wisconsin area, also, cord decoration may have survived into the historic period.

(4) Cord decoration is conspicuously absent in New York and surrounding areas in Canada and the United States. Here the pseudo-cord style is dominant although cord decoration proper occurs in Virginia.

(5) The antecedents of the cord style have not been satisfactorily identified in a Wisconsin ceramic horizon earlier than Effigy Mound, and it may be no coincidence that cord-decorated, cord-marked pottery is found in Kamchatka, Siberia, as a type which might be transferred to Wisconsin without modification.

Temporal Relationships of the Incised Over Cord-Marked and Cord-Decorated Styles

The archeological evidence to date suggests the assigning of the incised and cord-decorated styles to an early and a later horizon, respectively, in Wisconsin. What this separation indicates is yet only incompletely understood and can be completely understood only with a detailed knowledge of the many sided cultural picture of which pottery is a single facet. Any interpretation of that picture must account for temporal relationships known now to exist.

Stratigraphy can be used to show the relative ages of pottery at the Outlet Mound Group in Dane County, Wisconsin. Here no layered refuse deposits were available to study pottery sequences so stratigraphy of an indirect sort was necessary. Since fill for mound construction can be presumed to be gathered from neighboring areas, often containing thinly scattered village refuse, pottery included with the fill would be as old or older than the mound itself but no younger. Pottery left by later Indians would be absent from the mound fill unless occurring in animal burrows or other disturbed areas.

The following pottery types were collected from the surface of the Outlet site and adjacent village areas:

(1) a shell-tempered type, probably Oneota
(2) a plain Woodland type corresponding to the collared, angular mouthed ware from Aztalan, Jefferson County.
(3) a collared, cord-decorated Woodland type.
(4) a straight rimmed, cord-decorated Woodland type.
(5) a type dentate stamped within an area bounded by incising, background smoothed.
(6) a type simply dentated over smoothing.
(7) A Woodland type stamped with cord-wrapped dowels.
(8) an incised over cord-marked type.

Of these types those numbered one through four were absent from the fill of those circular mounds excavated by the University of Wisconsin field session of 1949 (Baerreis, 1949). This group includes two of the cord-decorated style, showing that this style is more recent to the site than the mounds of the Outlet Group. Types 5 and 6 could be considered Hopewell types. Being included within the mound fill, these would be of greater age than types 1 through 4. Type 7 is a Woodland type with affiliations extending through Illinois, Missouri and Oklahoma. [15] This wrapped dowel stamping is at least as old as the Hopewell types because of its mound inclusion. Type 8 is in the incised over cord-marked style and, again, at least as old as the mounds because of inclusion in the fill. Its cultural relationship to Illinois Black Sand Incised has already been covered.

The early temporal position of incising over cord marking at the Outlet site is given support by stratigraphy at the Black Sand type-site. There this style was found with village materials stratigraphically earlier than a Hopewell mound constructed at that site and overlying a series of Black Sand burials, separated from them by a layer of white sand and laid down in preparing the mound floor (Cole and Deuel, 1937). The overall stratigraphic picture in Illinois with qualifications may reflect that in southern Wisconsin:

[15] For Missouri see: Eichenberger, 1944, Pl. IX, middle, upper sherd, and Fig. 7, no. 6. For Illinois see: Bennett, 1945, Fig. 21b, no. a, p. 89. Oklahoma materials examined are in the laboratory of the Department of Sociology and Anthropology of the University of Wisconsin, Madison.

an early ceramic horizon characterized in part by the incised over cord-marked style, an intermediate Hopewell horizon, a later ceramic horizon characterized in part by the cord-decorated style (as in the Illinois Maples Mills Focus), and a late ceramic horizon characterized by Mississippi types. [16]

Aside from the direct stratigraphic evidence there is some evidence of a typological nature for the antiquity of the incised Woodland style. Its resemblance in respects already discussed to decoration on pottery of the early prehistoric Alexander series in the southeastern United States makes it appear that there must have been at least some overlapping in the distribution of each of these styles through time. The cultural dynamics that might have resulted in this resemblance are not obvious, however.

As for the cord-decorated style, its occurence historically is documented (supra). It is admittedly another story to determine the earliest appearance of this style, but where stratigraphy has been possible it is absent from the earliest cultural levels. Fortunately, the possibility of an Asiatic exportation of cord decoration to North America permits the venturing here of a beginning date for the cord style in Wisconsin. A consensus of judgments in the fields of linguistics, ethnology, and archeology points to the conclusion that there has not been a major migration across the Bering Strait, unless of Eskimo, since early Christian times (Jenness, 1940). Granting an Asiatic origin of cord decoration for the sake of the problem, a cord style horizon could have begun no later than a period of from fifteen hundred to two thousand years ago. Such a date could force Hopewell into a period beginning possibly before the birth of Christ and at the same time could extend the incised over cord-marked style into the first millenium before Christ.

Although this chronology begins much earlier than any currently accepted, the incised over cord-marked horizon alone takes into consideration hundreds of years of Woodland development never before recognized in Wisconsin. By it-

[16] This is an oversimplified sequence with much Illinois ceramic history unpresented. For a better presentation see: Maxwell, 1947; Cole and Deuel, 1937.

self the addition of this stage of development is not enough to radically alter existing datings, but even where the culture sequences have been well defined and outlined, as in New York, the suggestion has been voiced that the earliest ceramic horizons be pushed into the pre-Christian era. [17] Quite probably the opinion that the Woodland Pattern has a very respectable antiquity circulates much more generally than is apparent from published works. It is necessary only to better understand the diversity of Woodland culture in Wisconsin as a function of development as well as diffusion to recognize the growing importance of the time dimension.

Interpretations and Conclusions

What becomes apparent is that cultural and chronological relationships existed within the Woodland Pattern in Wisconsin that were not obvious with the "Lake Michigan type" classification. What the style analysis has done is to create a two part split within the "Lake Michigan type", resulting in an incised over cord-marked and a cord-decorated style. The concept of the pseudo-cord style in Wisconsin and elsewhere and of a related dentated Woodland style makes it possible to view a third division of Wisconsin pottery as participating in a northern Woodland decorative tradition of widespread distribution. More importantly new problems and new approaches to old problems have been set astir.

Significant are the Asiatic relationships that can be seen for two Wisconsin pottery styles particularly. An Asiatic origin has already been hypothecated for the whole Woodland Pattern (McKern, 1937), but specific stylistic tie-ups of cord-decorated and dentated pottery between the Old and New Worlds provide needed points of departure for a de-

[17] Gutorm Gjessing of the University of Oslo, Norway, expressed his opinion in 1948 that the 500-900 A. D. date given by Martin, Quimby, and Collier for the introduction of pottery into the New York Laurentian culture might have to be set back if the dentated Woodland pottery of the northeast is to be derived from the similar Asiatic comb-stamped ware (Gjessing, 1948, p. 300-1; Martin, Quimby, Collier, fig. 122). This suggestion is based on the temporal location of "comb-ceramics" in Siberia from 2000-1000 B. C. and on the unlikeliness that more than half a millenium be necessary for an eastward diffusion to North America.

tailed study of Woodland culture origins.

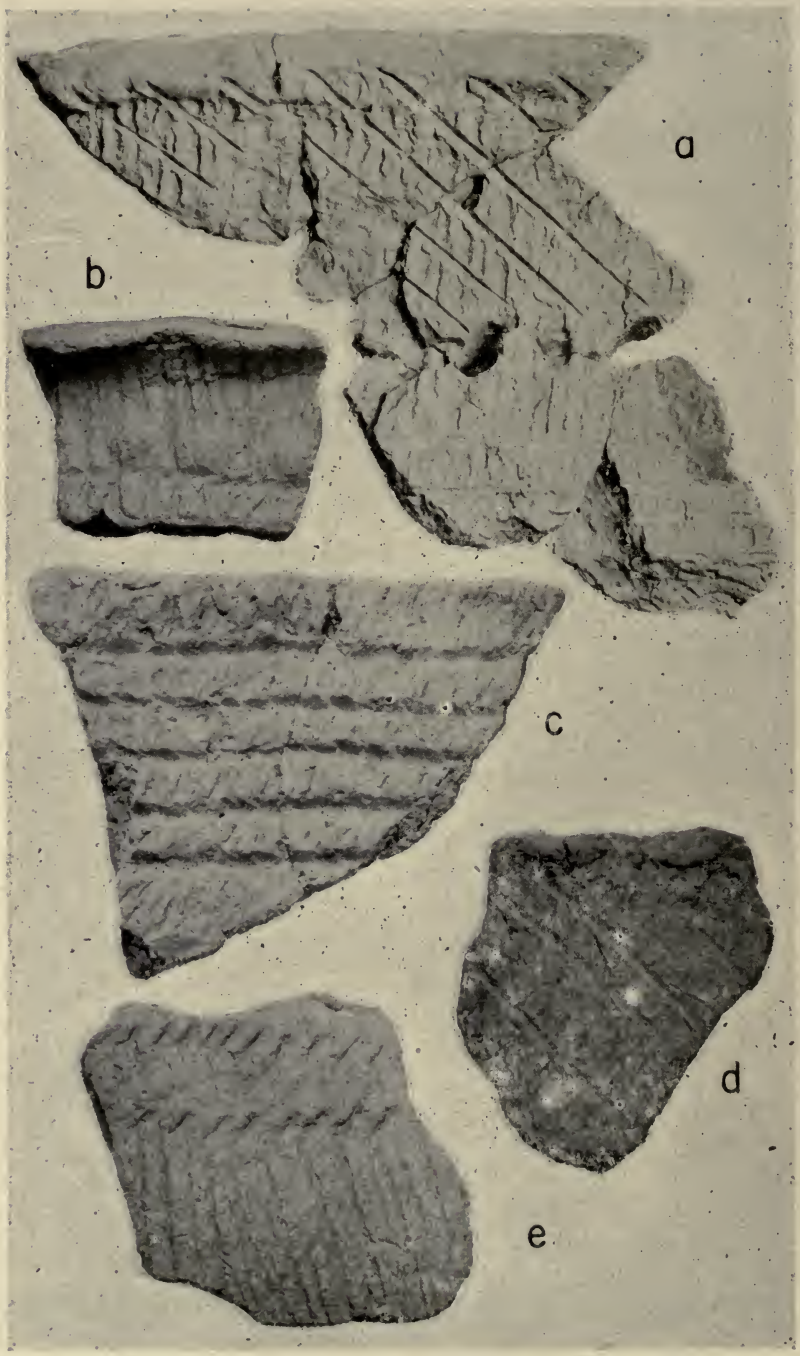
Significantly also, the Hopewell culture is bound up with Woodland ceramic development in a way which makes it impossible to regard it as an independent phenomenon. Certain discontinuities exist between early and later Woodland horizons which are bridged both temporally and culturally by Hopewell, though how this is to be interpreted is not known. The incised over cord-marked style correlates with a conoidally based, straight sided form and the cord-decorated with forms more constricted at the neck and more rounded at the base, the latter form often being accompanied by a decorated collar. In Wisconsin Hopewell both forms are found, the straight sided correlating with the so-called "utilitarian Hopewell" pottery, and the collared, more globose form with the "ornate Hopewell". [18] Characteristic Hopewell decoration, on the other hand, is in the dentate technique, typical also of the northern Woodland tradition, and in the zoned pattern occurring as well in the Alexander and Marksville cultures of the southeastern United States.

It seems possible that at least the incised over cord-marked and cord-decorated styles may be usable as horizon styles in the strict sense defined earlier. Such a scheme would be based in part on the known stratigraphy and in part also on the possibility of an introduction of the later style into Wisconsin from without, for if the direct developmental ancestors of the cord style were in Asia, the appearance of cord decoration in Wisconsin would seem to be a sudden mutation in style, out of line with the direction of development of already existing pottery, and thus facilitating the separation of ceramic horizons in a problem of stratigraphy.

W. C. McKern has maintained that the great variety of Woodland culture in Wisconsin is indicative of a long period of development within that state (McKern, 1949). The value of the concept of style lies in great part in the assistance it furnishes in tracing lines or phases of this development. As a classificatory device style is not intended to replace

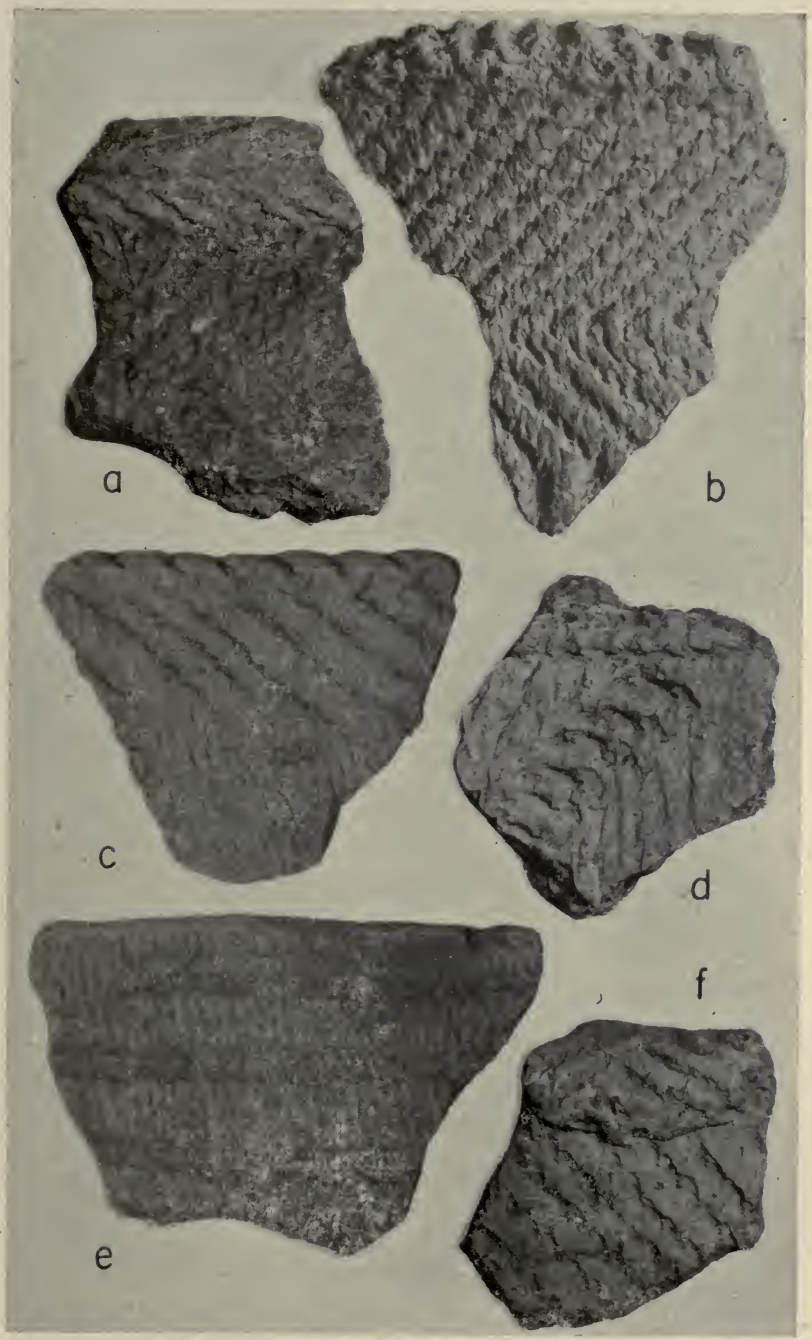
[18] James B. Griffin has discussed possible relationships of Hopewell "ornate" to collared Upper Republican and Iroquois ceramics (1944, pp. 370-371).

a complete "type" analysis. Style should be recognized as being divorced of many of the considerations involved in a typology and as being at a different level of analysis. With these factors understood the concept of style of decoration can be successfully adapted for use in Wisconsin archeology.



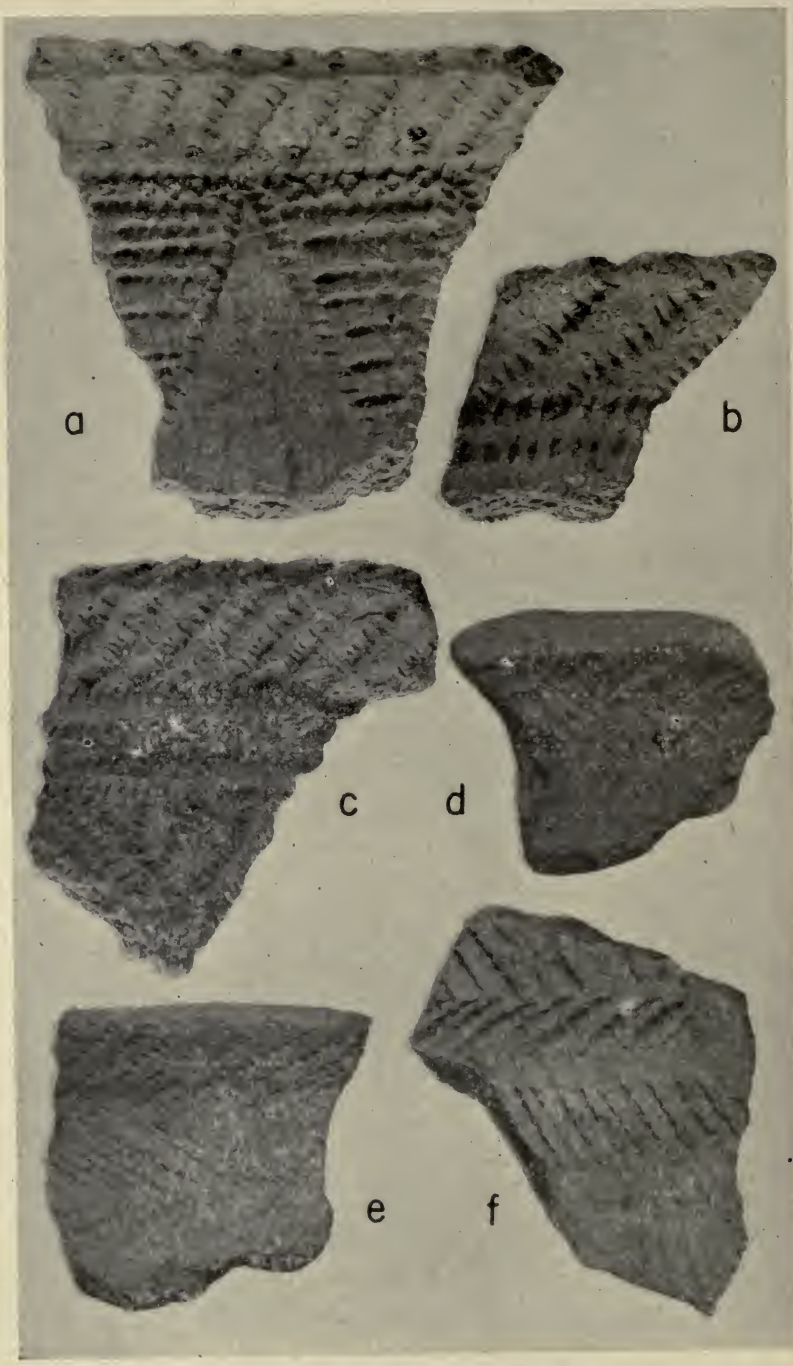
EXPLANATION OF PLATE IV

a.-d. Rim sherds decorated in the incised over cord-marked style.
e. Body sherd decorated in the incised over cord-marked style.
Proveniences: (a) New London, Waupaca Co., Wis.; (b, c, e.) Griffith Farm site, L. Monona, Dane Co., Wis.; (d) Columbia Co., Wis.



EXPLANATION OF PLATE V

a-c, e, f. Rim sherds decorated in the cord style.
d. Body sherd in the cord style.
Proveniences: (a, d, f) east of Red Banks, Brown Co., Wis.; (b) Two Rivers, Manitowoc Co., Wis.; (c, e) Fulton, Rock Co., Wis.



EXPLANATION OF PLATE VI

a - c. Rim sherds decorated in the pseudo-cord style, Clam L., Burnett Co., Wis.

d - f. Rim sherds (d, e) and a body sherd (f) decorated in the pseudo-cord style, Susquehanna Valley, Pa.

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June, 1950

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PRELIMINARY INVESTIGATIONS AT THE OUTLET SITE

Charlotte T. Bakken

PART I

The Outlet Site was first surveyed by C. E. Brown (1922). Recent investigations have been made by Dr. A. H. Whiteford (1949) in August, 1948, and by students of the University of Wisconsin in October of that year. The description of the archeological aspects of the October excavations is included in Part I of this report. Description of the more adequate recoveries of physical remains by both Dr. Whiteford and the October crew forms the basis for part II.

The Outlet Site is located on a rise in the rolling countryside of the Frost Woods Heights area of Madison, Wisconsin, overlooking Lake Monona Bay and the Yahara River. It is about a quarter mile to the southeast of Monona Bay. Specifically, it is in the W½ of the SE¼, Sec. 20, T. 7 N., R. 10 E. (Blooming Grove Township) of the Madison Quadrangle.

The land through which the Yahara River flows is low and marshy. Immediately to the east of the swampy river banks the land slopes gently upward to level off at an elevation of over 940 feet. Located on this slope are a dozen or more of the conical and oval mounds included in the Outlet group. At present the vegetative formation on the higher slopes is short grassland, but up to a dozen years ago it had been given over to the plow. In adjacent areas and particularly along the northern and western fringes of the area there are open park-like stands of oak-hickory, as well as denser stands of hickory, walnut, ash, etc.

The October excavations involved the removal of a single

bundle burial on the property of Mr. Albert Stewart. It was located about 20 meters southwest of the multiple burial pit excavated by Dr. Whiteford. The burial was found at a depth of three centimeters in an area disturbed by building activity. It was composed of a few fragmentary postcranial bones and the occipital portion of the skull. The only associated artifact was the fragmentary point of a gray chert drill found 50 centimeters southeast of the skull.

Trenching operations were undertaken into Mound 2, located about 50 meters downslope and southeast of the multiple burial pit. It was also located on Mr. Stewart's property and was selected for investigation because landscaping activities made its destruction imminent. The mound was about 12 meters in basal diameter. It was only a few inches in height, barely perceptible above the slope on which it was situated. Through it a trench, nine meters by one meter, was run in a southwesterly-northeasterly direction. This was expanded laterally to the western base of the mound by a secondary trench three meters by one meter. In this way most of the west half of the mound was sampled. A primary extended burial was exposed as well as the mound construction.

The mound fill was separated into two distinct zones (Pl. I, No. 1). The uppermost layer was a mottled blackish layer with a recent zone of humus about 2 to 4 centimeters in thickness. This zone varied from a depth of 18 centimeters at the southwest end to 29 centimeters on the northeast. It was more homogeneous in composition than the layer below it. This apparent layering may represent a difference in the composition of the material used for construction with a more homogeneous humus-laden soil used in the later loads. On the other hand, later disturbances may have influenced the structure of this layer. Since the area had been cultivated for some years previously it is possible that the upper zone may have derived its present characteristics from that action.

The lower layer of fill was browner in color, much mottled and interwoven by small lenses of gray ash, charcoal and fill material of varying texture and structure. The ash and char-

coal were located mainly in the northern half of the mound, but in no concentrated areas to indicate fireplaces. They probably represent loads of material taken from near village firepits. In this zone, also, a moderate amount of mussel shell and fish bone material was located in localized groupings. Throughout the fill various broken pieces of sandstone were noted, some showing evidences of burning. This lower layer varied from 18 to 25 centimeters in thickness.

The original subsoil appeared below the lower fill layer and was a yellow-brown sandy loam, homogeneous in color and of a uniform structure. The remains of part of the upper humus layer of the subsoil were noted throughout most of the trenched area, but were absent at the southern end. It seems likely that the sod and a portion of the underlying humus were removed before erection of the mound. This would account for the lack of the humus horizon in the southern portion where the sod and humus were probably removed to a greater depth.

One extended burial, oriented west-southwest, was recovered from Mound 2 (Pl. I, No. 2). The shoulders and pelvic regions were located at a depth of 25 centimeters below the surface, and the feet were 35 centimeters deep. Thus the skeleton was resting slightly downhill with the head lower than the pelvis and the feet on a level with it. It had been placed on its back facing slightly toward the left side. The burial was in the west central part of the mound and near the top of the lower fill zone. There was no evidence of a pit having been present around the burial. Therefore it was apparently an exclusive interment.

The skeleton was that of a middle-aged male. The most peculiar thing about it was the position of the skull. At first we thought we were looking at a skeleton without a head, but as work progressed, the skull came into view—next to the proximal end of the left humerus indicating possibly a decapitation. Only the parietal and frontal bones remained. It does not seem likely that a plow would disturb the skull and leave the skeleton in its articulated position.

No artifacts were found in association with the burial

PLATE I
1. STRUCTURAL PROFILE — MOUND 2

2. DECAPITATED EXTENDED BURIAL — MOUND 2

though several human bones were located nearby . Just to the right of the right knee and at the same depth was the tiny mandible of an infant. A fragment of an innominate bone was near the right ankle. A lower canine tooth was beneath two right ribs.

Other human bones were found scattered throughout the fill. Between the 48- and 56-centimeter depths a right mastoid process, the major part of a face, left orbital border, and the left half of a male mandible were noted in various areas of the fill. Several vertebraes were found between the loaded zone and the original subsoil, thus may have been scattered over the surface of the soil before the mound was erected. A few small bones were found a few centimeters deep in the soil. Undoubtedly their presence in this layer can be attributed to rodent action. None of the scattered bones showed evidences of burning.

It is probable that the scattered cranial bones belong to the extended burial. The left orbital fragment was noted to be part of the skull cap. The molars of the left mandible fit perfectly against the molars of the fragmentary face. The same ruggedness and thickness of bone characterize the face, mandible and skull cap. There is no question that the face and mandible belong to the same individual. Their association with the calva is of course less certain though entirely possible.

The reasons for the decapitation of the skull and the scattered cranial bones are difficult to interpret. Later mound disturbances by Indians were not noted. It is not likely that a plow would move the skull out of place and leave the rest of the skeleton articulated. It certainly would not dig the other cranial bones to the depths at which they were found. Rodent action is a reasonable cause. The scattering of the cranial bones and the movement of the skull to the side of the humerus might be attributed to their activity. Dr. Whiteford has mentioned considerable disarrangement of the burials he recovered and attributed it to woodchucks or the smaller rodents.

However, the reason for the intentional decapitation might

be approached from the cultural viewpoint. The Hopewellian mound groups in Ohio have commonly yielded instances where human skulls alone have been in association with altars or other burials, indicating a ceremonial custom involved. Two of several instances of decapitation might be noted in the Illinois Hopewell. In the Brangenburg Group (Griffin and Morgan, 1941), in the Illinois River Valley, seven headless skeltons were found extended side by side with seven skulls near the other end of the grave. Wray (1938) has noted the burials of seven skulls without the postcranial skelton in a subfloor pit of a bluff mound in the Fulton Hopewell complex. Thus it is not inconceivable that the placement of the skull cap in the Outlet example might be a cultural characteristic. If this were true, later rodent activity could still account for the scattering of the other cranial bones to deeper areas in the mound.

Little cultural material was obtained from the mound. There were no artifacts with the burial. Materials from the mound fill included a fragmentary chert projectile point, a moderate amount of flint chips and 33 potsherds. The broken blade of the chert point was 33 millimeters long. It was located at a depth of 12 centimeters in the mound fill.

Twenty-nine of the potsherds were from the mound fill and the rest from the surface area in the vicinity of the excavations. The majority of the sherds follow the definitions of the Lake Michigan Woodland type set up by McKern (1928 and 1930). Most are body sherds, smoothed or cord-roughened, of the characteristic red-brown granular, friable paste, the result of sandy clay and poor firing. Three show cord-imprinting on the surface (Pl. II, No. 1). The few rim sherds present show the outcurved flare of the Lake Michigan vessel form. All but one, an undecorated cord-wrapped-paddle sherd (Pl. II, No. 6), have narrow incised lines criss-crossing obliquely to the rim (Pl. II, Nos. 2 and 4). No. 2 also shows bossed-nodes parallel to the lip punched from the exterior inward. No. 4 has the additional decorative scheme of cord-wrapped-stick impressions on the lip.

The four sherds found on the surface have Lake Michigan-

type paste and granitic temper. Two have eroded surfaces, one is plain, and the fourth has fine dentate stamping in parallel rows.

It is interesting to note the homogeneity of the temper in these sherds. The temper of all is probably from a granitic source, though a few show only the quartz or quartz and amphibole components of granite. The predominating temper is the distinctive red or pink granite, a well known Wisconsin rock type. The closest outcroppings of this granite are some distance to the north of Madison. However, glacial erosion disrupted placement and moved boulders often many miles, and these erratics are common in Dane County and Southern Wisconsin. Because of the Pleistocene glaciations in this area temper types cannot be located as to exact source and locality. A local source of supply for the red granitic temper seems to be indicated.

Two sherds found in the mound fill do not conform to the Lake Michigan type and are described separately. One is a red-brown body sherd with compact granular texture and granitic temper. It is decorated by dentate stamping, short punches and a broad trailed line on one side that may indicate the boundary of the decorated area; thus an alternate-zoning treatment is indicated, characteristic of Hopewellian decorative technique (Pl. II, No. 7). The other is a dark brown rim sherd with black core, a flaky texture and crushed quartz temper. The rim is straight, non-thickened, and the lip is straight and slightly rounded. The surface is cord-roughened under a decoration of non-raised fingernail impressions (Pl. II, No. 3). This sherd appears to be similar to the Hopewellian types with fingernail impressions found in Fulton County (Cole and Deuel, 1937) and Jo Daviess County (Bennett, 1945), Illinois.

Three small sherds in the collection exhibit the typical Lake Michigan granular paste but have dentate-stamped elements. One is a rim sherd with flat lip surface inclined outward, and with simple dentate impressions in rows perpendicular to the rim (Pl. II, No. 5). The other two (probably fragments of the same vessel) have very fine dentate stamping in narrow

PLATE II
POTTERY FROM MOUND 2: OUTLET MOUND GROUP

rows. The paste, though granular and friable, is brown to black in color. These two sherds are surface finds. They seem to be similar to Cole and Deuel's Types 2 and 2a associated with both Hopewellian and Central Basin Woodland in the Illinois River Valley.

A description of the white clay facial covering on two skulls found during the August excavations by Dr. Whiteford is included here. The later laboratory analysis yielded information as to its character and extent which is added to aid in Dr. Whiteford's analysis and complete his description.

The white clay covered the face of an extended burial (Cat. No. 5.2), a female about 20 years old. The skull exhibited also the more pronounced of the two cases of frontooccipital deformation (described in Part II of this report) that were found in the Outlet group. The clay was present in patches only, in the eyes, nostrils, and on both sides of the face. Though white, it was mixed with ordinary soil and was rather impure. It adhered closely to each side of the face and mandible and to the bone in the orbits and nasal aperture. Its lower extent was half way down each side of the mandible where it faded out and was replaced by soil. The upper extent on the left side was to the lower edge of the zygomatic arch and underneath it. On the right side the clay extended up under the arch and as high as the temporal line on the frontal bone. The face showed in other areas indications that clay had previously been present. On the sides of the vault the clay extended as far back as the zygomatic process of the temporal bone.

The white clay was not modeled to form a facial mask, nor was it fired. It seems to have been put on the burial in a liquid state after the individual had been placed in position for interment. This would account for the clay being impure and mixing with the soil around the edges. The burial, though extended and in articulation, must have been in a moderate state of decomposition for the clay to adhere closely to the bone and fill the orbits and nasal aperture.

Similar remains of the white clay were noted on a male skull (number 5.3), undeformed and longheaded. Small lumps

of the clay were present over the maxillary area and above the palate and in part over the lower jaw, thus did not cover as much of the face as in burial 5.2.

These clay coverings are reminiscent of the two clay masks found in the Red Cedar River Hopewell (Cooper, 1933), However they were not modeled on the skull or fired as were the Red Cedar River examples. Closer affiliations for the bare mechanical procedure may be noted in the mounds of Northwestern Illinois. Bennett (1945) has reported the use of liquid clay in burial rites in the Portage Mound Group of Hopewellian affiliation. Two mounds yielded this custom, one a conical of the Hopewellian group, and the other a linear of the Woodland group. Bennett concludes that the use of the clay by the builders of the linear mound suggests an influence from the Hopewellian manifestation where it was a more common occurrence. This custom has also been noted in several Hopewellian-like sites in Northeastern Iowa as well as in the Copena culture in Alabama, possibly an earlier manifestation than the northern sites mentioned. It should be noted that the Portage conical mound yielding the liquid-clay-burial custom also yielded a pot similar to the Outlet sherd with a soft dark paste and exhibiting fingernail impressions over a cord-roughened surface.

It is evident that the largest body of material is to be found in the second part of this report. However some tentative suggestions as to cultural affiliations might be made. Woodland and Hopewellian traits are both represented at Outlet. Woodland affiliations are shown by the presence of Woodland pottery types in the greater abundance, a round copper awl found in Dr. Whiteford's burial pit, single and multiple bundle burials, lack of grave goods, burial placed above mound floor, preparation of mound floor (though in the Outlet mound this amounted merely to clearing of the sod), small conical mounds with ash, charcoal, flint chips, mussel shells, and human bones scattered throughout the fill, and cradleboard deformation of skulls.

Hopewellian traits include the presence of two Hopewellian

potsherds, the copper awl, decapitation of the burial, single and multiple extended and bundle burials, liquid clay poured over burials, rectangular grave pit, some preparation of mound floor, conical mound with associated materials in the fill, and cradleboard and intentional deformation of skulls. The two cultures therefore hold in common such general traits as conical mounds, associated deposits in the mound fill, some preparation of the mound floor, single and multiple burials of disarticulated bones, copper awls and cradleboard deformation.

The complex of cultural remains is thus far not extensive, but serves to indicate the presence of the two cultures, Woodland and Hopewellian, leaving a confused record to be clarified by further investigations.

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PART II

This section is a brief description of the physical aspects of the fifteen burials found in Dr. Whiteford's excavations and the October investigations. The August work provided for study a group of thirteen individuals, all removed from the rectangular burial pit. The remaining two burials included the bundle burial found midway between the multiple burial pit and Mound 2 and the extended burial from Mound 2.

In general the series was in rather fair condition for this area and climate. The majority of the long bones yielded measurements and indices. The skulls were not so well favored, however, as the postcranial skeleton. Most were rather badly warped, probably due to soil pressures. Cranial measurements, therefore, are not completely accurate in some cases, especially those measurements involving large areas of the skull. Such measurements should serve mainly as indicators of the skull type.

Determination of ages of the series were made on the basis of suture closure and the condition of the symphysial face of the pubic bone. Included in the group were two children of undetermined sex, three youths (13 to 17 years) of undetermined sex, one young female (21 to 34 years), four middle-aged males (35 to 55 years), two middle-aged females, two old-aged males (55 and over), and a few fragmentary long bones of undetermined sex. The highest precentage of deaths occurring in the middle-aged group is consistent with the rather short life span among Indian groups. No reasons for the deaths of the youths and children were observable from the bones. Measurements and observations were confined to the adults in the series.

The mean statures for the group were calculated by Pearson's formulae from measurements involving the femur and tibia (Pearson, 1898). The males averaged 165.73 centimeters, and ranged from 162.28 to 169.69 centimeters. The females averaged 156.84 centimeters, ranging from 154.98 to 158.69 centimeter. These statures placed the Outlet series in the lower reaches of the medium-sized people of the world. The

females were taller relative to the males than is usual among the world's people. Hooton (1922) first noted this in a Hopewell series from Ohio.

Measurements of the crania are summarized in Table 1 for number of cases, ranges and means. In some cases the means must be defined in relation to the actual situation. They are not entirely representative due to the small total number.

The diameters and indices of the cranial vault show generally a rather small vault for the series, with the exception of male 5.3 with a long, narrow head and an unusually high vault. The cranial module of 154.43 suggests also a small vault. The mean cranial index places this group in the mesocranial class, though this mean is made up of a dolichocranic 71.28, a mesocranic 75.68, and a brachycranic 81.46, in the three males yielding this index. The last index was, however, from a male, 5.11, with a slight left occipital deformation. Consequently the mean might otherwise fall into the dolichocranial class for undeformed skulls. No females yielded indices.

The length-height and breadth-height indices gave rather high vaults placing the same three measurable skulls in the hypsicephalic and acrocephalic categories. However, again this mean is composed of one orthocephalic and metriocephalic individual of medium vault height. Thus with this series the range from medium to long vault and medium to high vault is a more accurate picture than that of the mean figures.

The horizontal circumference and sagittal arcs also serve to indicate rather small skulls generally. When the total sagittal arc is separated into its three components it is seen that, contrary to the usual situation, the occipital arc (lambda-opisthion) is the longest. Also the frontal (nasion-bregma) is longer than the parietal (bregma-lambda) by over four millimeters. This is true in all but one individual, the meso-brachycranial. This is also the reverse of the usual case in which the parietal is the longer of the two in dolichocranials and the shorter in brachycranials. Thus we have a complete reversal of the normal European type in the proportionate lengths

TABLE I — MEASUREMENTS OF THE OUTLET CRANIA

	MALES			FEMALES		
	Number	Range	Mean	Number	Range	Mean
DIAM. & INDICES OF VAULT						
Glabello-Occipital Len. 1	3	178-188	183.7	1	-	142
Maximum Breadth 8	3	134-145	139.7	0	-	-
Basion-Bregma 17	4	132-153	139.2	2	122-127	124.5
Cranial Module (1-8-17-3)	3	152.3-158.3	154.43	0	-	-
Cranial Index (8|1)	3	71.28-81.46	76.14	0	-	-
Length-Height Index (17|1)	3	71.35-81.38	76.17	0	-	-
Breadth-Height Index (17|8)	3	93.10-114.18	100.52	0	-	-
ARCS OF VAULT						
Horizontal Circumf. 23a	3	510-532	519	2	465-468	466.5
Total Sagittal Arc 25	3	356-384	370	2	320-328	324
Frontal Arc 26	4	118-130	124.5	2	114-120	117
Parietal Arc 27	6	110-125	120.2	3	102-115	108.7
Occipital Arc 28	4	113-150	128.5	2	100-104	102
Transverse Arc 24	4	313-318	314.8	1	-	315
PROGNATHISM						
Basion-Nasion 5	3	100-106	102.7	2	86-89	87.5
Basion-Prosthion 40	4	92-99	95	1	-	92
Gnathic Index (40|5)	3	86.79-97.06	92.62	1	-	103.37
FACIAL BREADTHS & INDICES						
Minimum Frontal Diam. 9	3	87-92	89.3	2	93-95	94
Bizygomatic Diameter 45	1	-	137	0	-	-
Bigonial Width 66	3	101-112	105.7	3	88-102	94.3
Fronto-Parietal Index (9|8)	3	63.45-64.92	63.98	0	-	-
Cranio-Facial Index (45|8)	1	-	102.24	0	-	-
Zygo-Frontal Index (9|45)	1	-	63.50	0	-	-
FACIAL LENGTHS & INDICES						

Zygo-Frontal Index (9|45)	1	-	63.50	0	-	-

FACIAL LENGTHS & INDICES						
Nasion-Menton 47	2	111-119	115	1	-	113
Nasion-Prosthion 48	2	69-72	70.5	1	-	72
Facial Index (47|45)	2	81.02-82.64	81.83	1	-	89.68
Upper Facial Index (48|45)	2	50.00-50-36	50.18	1	-	57.14
ORBITAL REGION						
Orbital Height, Right 52	2	34-36	35.0	1	-	34.0
Orbital Height, Left	2	33-35	34.0	1	-	32.0
Orbital Breadth, Right 51a	2	44-47	45.5	1	-	46.0
Orbital Breadth, Left	2	46-47	46.5	2	47-49	48.0
Interorbital Breadth 49a	4	13-15	13.75	1	-	13.0
Biorbital Breadth 44	2	96-97	96.5	2	100-101	100.5
Orbital Index, Right (52|51a)	1	-	77.27	1	-	73.91
Orbital Index, Left	2	71.74-74.47	73.1	1	-	65.31
NASAL REGION						
Nasal Height 55	2	51-53	52.0	1	-	53.0
Nasal Breadth 54	3	24-26	25.0	1	-	24.0
Nasal Index (54|55)	2	45.28-49.02	47.15	1	-	45.28
PALATAL REGION						
External Palatal Length 60	5	47-56	50.2	2	48-54	51.0
External Palatal Breadth 61	5	59-64	61.8	3	58-61	59.7
External Palatal Ind. (61|60)	5	110.71-133.33	123.53	2	112.96-120.83	116.9
MANDIBLE						
Bicondylar Width 65	2	115-123	119.0	2	107-116	111.5
Bigonial Width 66	3	101-112	105.7	3	88-102	94.3
Height of Symphysis 69	5	32-36	33.6	3	32-34	33.0
Min. Breadth of Ramus 71a	5	33-36	34.8	3	31-35	33.3
Condylo-Symphysial Len. 68 (1)	4	100-108	105.0	2	100-110	105.0
Mandibular Index (68(1)|65)	2	81.30-93.04	87.37	2	93.46-94.83	94.14

Numbers behind measurements and indices refer to definitions of those measurements in Martin's Lehrbuch (1928)

of the three segments, and this is consistent for all measurable skulls in the series.

The index for facial prognathism places the males in the orthognathous range of 98 or less, this being true of all three skulls. The one female measured was in the high mesognathous range (93-103) with a 103.37 index.

The most outstanding feature of the frontal region was the extreme narrowness of the forehead, particularly in the males. The 89.3 mean minimum frontal diameter was made up in every case of unusually small frontal breadths. This same narrowness is indicated in the low fronto-parietal index of 63.98 (broad head in relation to forehead); the low zygomatico-frontal index of 63.50 (broad face in relation to forehead); and in the high frontogonial index of 113.26, relating a narrow forehead to a rather broad lower facial region. The cranial-facial index of 102.24 for one male (5.3) indicated a fairly wide face in relation to a long narrow head.

Two male skulls yielded total and upper facial indices. These indices for one of the skulls were calculated from an approximated bizygomatic breadth obtained by multiplying the measurement for half the face (zygoma to nasal spine) by two. The same is true for the one female noted. Both males exhibited euryprosopic or broad faces with a mean index of 81.83. The upper facial area was mesene (bordering on euryene) or medium broad, with a mean of 50.18. The female however was mesoprosopic (89.68) or had a medium narrow total face, and a narrow upper face (57.14).

The height of the mandibular symphysis was medium, with only one male tending toward a fairly deep chin.

The orbits were moderately high and on a par with other Indian groups. In breadth (to dacryon) however they exceeded most Midwestern groups with a high mean of 45.5 for the right and 46.5 for the left. This may be largely due to the wide, splayed-out maxillary bones on either side of dacryon in several skulls. Though the right orbit was higher in all cases than the left, it was also the narrower of the two. This asymmetry is contrary to the usual situation in which the

right is either broader and lower or broader and higher than the left.

The mean orbital indices place both orbits in the chamaeconch or low range of 83 or less. Due to the asymmetry in orbit size, the right is higher than the left, but still within the chamaeconch class. Restoration of the crania has undoubtedly altered orbital and facial measurements to some extent. Since, for instance, most faces were restored to the skulls in the region of the orbital borders, the orbital indices might tend to be lower than otherwise.

The mean interorbital breadth of 13.75 indicates narrow nasals for the series as a whole.

Nasal height was found by taking the average between the two measurements made from nasion to the midpoint of the lower borders of the nasal aperture on either side, according to Hrdlicka's method. The nasals were medium in length, and in breadth narrow. The mean nasal index of 47.15 (mesorrhine) for males is made up of one leptorrhine index (5.11) and one mesorrhine index (5.3). The only female measurement obtained was also in the leptorrhine range.

The length and breadth measurements indicate a palate for all individuals that is unusally small for Midwestern Indians. This is well reflected in the means of 50.2 for length and 61.8 for width. The palatal index of 125.53 places the group as a whole well within the brachyuranic range. All males but one had extremely broad palates. Number 5.11 had a measuranic index of 110.71. The females had a mean just within the brachuranic class, which was made up of one measuranic and one brachyuranic type.

The bicondylar width of 119 for the male mandibles is narrow in comparison to the bigonial width of 105.7, thus yielding mandibles that are rather widely flaring at the angles. The mandibular index of 87.37 for males and 94.14 for females is an expression of the rather narrow bicondylar width and the short condylo-symphysial length. The two females had fairly long jaws. The mean male index is made up of one individual (5.3) with a rather short jaw, especially

for so long a head, and one individual (5.11) with a longer jaw and a fairly broad head. This is another interesting reversal of the usual case in which dolichocranials tend to have longer jaws than do broader-headed individuals.

The form of the cranial vault, as seen in the norma verticalis, was found in this series in only two types, the pentagonoid and the ovoid. The pentagonoid was marked by bulging parietal eminences and square-cut foreheads. The ovoid was a more rounded outline in which the parietal bosses were not so pronounced. One was as common as the other, but it should be noted that the ovoid tended to show slight angles since all the skulls had medium to well developed parietal bosses. The difference in form was more of degree than of type.

Cranial deformation was noted on four out of ten Outlet skulls recovered by Dr. Whiteford. In two instances it was of slight to moderate amount involving the occipital bone only and favoring the left side. In the other two it was the intentional frontal-occipital type.

The occiptal flattening was undoubtedly unintentional cradleboard deformation, a characteristic that is noted in many Hopewell skulls from Ohio (Hooton, 1922) and Missouri (Stewart, 1943), and in Woodland skulls in Illinois (Neumann, 1937). In Wisconsin, McKern (1930) reports one instance from an Effigy Mound group. His Trempealeau materials (1931) show a number of skulls with a pronounced flattening of the occiput. Wood (1936) notes it also on several crania from the Big Bend (Hopewellian) Mound in Waukesha County.

The two cases of fronto-occipital deformation seem, on the other hand, to be a rare feature in Wisconsin, as far as can be traced in the literature. One instance has been noted by Barrett (1933) at Aztalan. A study of other Wisconsin skeletons may yield further examples. Two female skulls were involved, with deformation resulting in a marked slope to the forehead and a flattened occiput. The fore and aft pressure produced a transverse bulge across the vault in the

obelionic region (Plate I). It was more pronounced in skull 5.2 (with the liquid clay face covering), but in both cases an extreme shortening of the cranium resulted. This deformity seems to be the result of placing a stiff or semi-flexible board over the frontal bone with bindings around the skull to hold it in place. An additional board may or may not have been placed against the occiput, but indications are that it was also present there. This corresponds to Neumann's (1941) "parallelofrontal-occipital" type in which the occipital flattening is parallel to the flattening produced on the frontal bone. Intentional deformation was a trait fairly common in the Gulf States where it has been noted in the Hopewell and Coles Creek horizons by Collins (1941), the Caddo horizon in Louisiana (Neumann, 1941), and in the Spoon River Focus in the Middle Mississippi in Central Illinois by Neumann. It appears to be rarer in the more northerly areas of the Midwest.

Three skulls of the series exhibited a very slight bifrontal flattening on each side of the median crest. Both Stewart (1943) and Snow (1948) favored a genetic explanation for this trait, noting it as an expression of the natural long-headedness of the group. A slight to well developed flattening in the lambdoid region was exhibited in as many speciments as it was absent, and varied in degree.

Suture serration in general was about medium in complexity, the lambdoid usually tending to exhibit greater serration than the other two. The sagittal was often the simplest of the three. Wormian bones occurred in more than half the crania and were, as is usual, most abundant in the lambdoid, ranging from minute to rather large ossicles. The normal contact of the parietal and sphenoid bones in the pterion region was noted in all skulls.

Brow ridges were generally normal in size for the sexes. Projection of the frontal bone at glabella was typically large in the males and slight in the females. In no case was the brow and glabellar projection so strong as to give the skull a heavy "beetled brow" appearance.

Metopism occurred as a distinct and open suture in one male skull only. The most interesting feature of the frontal bone was its height and breadth. In most cases it was quite high from nasion to bregma, and narrow between the temporal lines, particularly when compared to the width across the parietals. This characteristic has also been noted by Stewart in his Missouri Hopewell series (1943) and in Hooton's (1922) Ohio Hopewellians.

The parietal bones, in the male crania, were characterized by well developed to pronounced eminences. Sagittal elevations were high and keeled in form. In the females the height of the saggital crest varied in all three skulls from very slight to well developed, due probably to the deformation noted. The prominence of the eminences and sagittal ridge are a well defined feature of many dolichocephalic skulls of small cranial capacity. In this series, the skull vaults were poorly filled out and in the norma occipitalis had a "house-shaped" outline with flat temporals and with parietals flattened and rising to the keeled sagittal crest.

The post-coronal depression, which runs transversely across the skull behind bregma, was well developed only in two skulls.

The curve of the occipital bone was well developed and even was bulging in the skulls that exhibited some degree of lambdoid flattening above the apex of the occipital. The occipital torus was moderately developed in all males and slight in the females. Usually it was the mound type though a crested torus was also present.

The shape of the orbits varied between the sexes. In the females the orbits were oblong, and in the males either square or rhomboid, though the square type predominated. Inclination was usually medium to pronounced in degree.

In general the malar region was large and broad with moderately flaring borders to the maxillae. The upper nasal region was characterized by medium depression at nasion, and a bridge of medium breadth though of varying height. On the lower borders of the nasal aperture, the nasal sill was

usually humanly sharp and without subnasal grooves of any appreciable size.

Most of the male skulls were characterized by large and robust mandibles in which the chin was usually prominent and large. In the females the jaw was medium, and even small in one specimen. Chin projection also was strong in two jaws but submedium in the small mandible. The eversion of the gonial angles at the back of the jaw was pronounced in most cases among the males and gave the face a rather wide appearance.

The most striking feature of the teeth was their pronounced wear. In all adult skulls wear had reduced the crown enamel to small islands, or it had worn off entirely leaving exposed dentine or pulp. The young female of 20 to 24 years of age showed moderate wear of the cusps in all but the third molars. In some cases wear had reduced many of the teeth to mere roots, exposing the pulp cavity and allowing abscess formation. Wear on the crowns in all but one case was horizontal across the cusps. Skull 5.11 had lowers worn toward the outside and uppers towards the inside on whatever teeth he had managed to maintain.

Tooth loss, ante mortem, occurred in three individuals. It was noted mainly in the molar region and due probably to the formation of abscesses. Caries, though found in all specimens, was in most cases of pin-point size. Abscesses had made openings into the alveolar border in three skulls and were well developed in every case. Receded alveolar borders were noted on most middle- and old-aged skulls, indicating an alveoclasian condition. In most respects the teeth were fairly even and straight. Where crowding occurred it was usually slight in degree and varied from skull to skull in teeth involved.

The postcranial bones have been described and tabulated as a single series comprising all measurable bones or their parts in each dimension and observable variation. These measurements and observations have not been included in this report for want of space. They are on file in an M. A. thesis sub-

mitted to the University of Wisconsin (Bakken, 1949) for the perusual of all interested students.

Few pathological conditions were noted on the Outlet skeletons. Arthritic tendencies were found in the lumbar vertebrae of at least three males and possibly two females. Lipping around the edges of the vertebral body was most pronounced on the third, fourth and fifth lumbars of the males. It was present in a moderate amount in the females. One healed fracture with an offset axis was noted and involved the proximal end of a right male fibula.

Pin-point perforations were found on most of the skulls and involved the areas around the palate, brows, bregma, lambda and obelion. All adult crania had a moderate amount and two females and one male yielded a large number of these perforations and one male yielded aogrfecasioSlyumuon these perforations. Whether or not this condition is an example of osteoporosis in this series was not ascertained. Osteoporotic conditions occur usually in the palatal region, around the brow ridges and on top of the skull, and are thought to be the result of nutritional deficiencies.

Evidences of disease involving bone structure were found on one middle-aged female. The skull exhibited many pinpoint perforations. The long bones showed inflammatory thickenings, particularly at the distal ends, that were roughly scarred and pitted. Diameters of the bones were abnormally large. Bowing of the shaft was extreme in the fibulae. All long bones were affected, the humerus and femur being less so than the others. X-rays of the bones indicated periostitis involved, or perio-calcification of the bone cortex. The medullary canal was unaffected, but was indistinct at the distal ends blending into the cortex. The disease contributed to this bone condition could not be diagnosed with certainty, as is often the case with pathological types. Syphilis could have been the cause. Also pulmonary infections often tend to leave perio-calcified areas. How prevalent pulmonary diseases were among pre-Columbian Indians is uncertain. Syphilis has been noted particularly in Hopewellian remains and also in Middle

Mississippi populations throughout the midwestern and southern areas.

The Outlet crania have yielded physical characteristics that are common to both Woodland and Hopewell groups and found in Ohio, Illinois and Missouri. Neither the Woodland or Hopewell cranial series from these various areas show a distinct set of characteristics that would undisputedly place the Outlet series in one, as opposed to the other, group. As Neumann (1937) has noted, "There is much overlapping; the differences are those of degree, and they await a detailed analysis of adequate statistical samples."

With this description of the measurable Outlet crania it should be added that they are not entirely representative of all skulls in the group. The indices yielded a long mesocranial head form with the expression of a brachycephalic element. Two of the unmeasurable skulls however appear to be rather broadheaded and indicate a brachycephalic element at Outlet that may be quite considerable. The inclusion of these examples would result in a rather high percentage, at least 40%, of brachycephalization for so small a sample.

The series therefore is as yet statistically inadequate. It seems unwise to do more than speculate on physical relationships. In this regard, the Outlet group probably represents another instance of the basic Eastern Woodland stock, but beyond this its closer affinities cannot be indicated with certainty. A more adequate sample is necessary to determine the degree of brachycephalization of the group. Possibly it may represent infiltration and migration involving more than one physical type, and yield as heterogeneous a population as that found in the Illinois Hopewell series. Its presence may be associated with intentional cranial deformation. It suggests, along with deformation, a late occupation for Outlet, perhaps late enough to be influenced by the relatively broadheaded Middle Mississippi type.

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PLATE 1

SKULL 5.2

YOUNG FEMALE WITH FRONTAL-OCCIPITAL DEFORMATION

OUTLET SERIES

PLATE II

SKULL 5.3

OUTLET SERIES

PLATE III

Skull 5.4

OLD-AGE MALE

OUTLET SERIES

PLATE IV

SKULL 5.11

SLIGHT OCCIPITAL DEFORMATION

OUTLET SERIES

PERIODICAL DEPT.

THE WISCONSIN ARCHEOLOGIST

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(New Series)

September, 1950

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THE PURPOSE AND VALUE OF TRAIT LISTS

W. C. McKern

In the last December number of the Wisconsin Archeologist (Volume 30, Number 4, N. S.), Dr. David A. Baerreis makes certain comments on trait lists, illustrating his point on the basis of the Hopewellian Culture. Constructive criticisms of this character are always valuable, and my reaction to his article is one of gratitude, although I do not agree with his major thesis.

The value to archeology of any list of traits, or trait-indicative materials representative of a cultural manifestation has been discussed to a considerable extent in late years by students of American archeology. Too frequently these discussions have been based upon a misconception of the purpose of such a trait list. For example, Baerreis states (p. 55) that the trait lists published frequently in this series are " . . . designed to be a complete inventory of the cultural content of the varied cultural divisions in Wisconsin archeology . . .". Actually, they were not designed to perform any such comprehensive purpose. Rather, they are just lists of known or probable material facts concerning apparent cultural divisions. They are in no sense complete, other than in terms of existing, limited knowledge. In instances they can be placed in a trait list only as probable. They are inventories of material data which serve to summarize, at any given time, what is known or generally accepted as culturally indicative for the recognizable cultural divisions.

That such trait lists serve as assists in the identification of specific cultural manifestations, however, is demonstrated

repeatedly in any laboratory where materials obtained in the field are under observation. Of course, one does not expect to find the entire list for any given complex in one grave, one mound, or resulting from a certain amount of work at one site. Prehistoric back yards and graves are as likely to contain a limited, spotted record of culture as our own back yards and graves. However, the typological character of material culture is often quite apparent without access to a complete representation of known or accepted types of things.

Although trait lists were employed long before the Midwestern Taxonomic Method was thought of, it has become popular to associate the two things and to blame the concept of trait lists onto the taxonomic method. Actually, trait lists are employed frequently by those who make no use of any admitted taxonomy. The Midwestern Taxonomic Method itself, as conceived and revised by those primarily responsible for it, has been a subject of much misunderstanding and undeserved criticism. Baerreis says (p. 65) that, according to this method, " . . . cultures are grouped in categories of increasing size beginning with the component, the basic manifestation of a culture at a single site, . . . ". Actually, the Midwestern Taxonomic Method provides for the grouping of cultures in categories of **increasing complexity and sharp definition.** The most complex category is the focus, not the component. The component is simply the manifestation of a focus at any one site, and is not a separate, additional category.

This classificatory method was never intended to " . . . help us solve the major problems of the archeologist (p. 66)." Its sole purpose is that of supplying more specific, even if temporary, terminology for categories of culture-indicative materials, which are found to recur substantially at several sites, are readily recognizable, and consequently can be equipped with distinctive names. Every field archeologist employs some type of classification, as manifested by his terminology. The Midwestern Taxonomic Method was proposed only to provide a standard type of classification method, so that various students in the field would be equipped

with a clearer understanding of each other's problems and terminology.

Baerreis' criticism of percentage figures (p. 66), when employed to determine culture assignation in classification, is entirely justifiable. Such percentage figure cannot determine cultural assignation, and have not been so used in recent publications. Percentages vary as additional data are made available. Actually, the cultural assignment in each instance is made before the percentages are available. However, such percentages do serve to describe quantitatively the apparent similiarity, or dissimilarity of two compared manifestations on a basis of known type materials. Percentage determination was thrown out of the Midwest Taxonomic Method at a rather early stage of experimenting.

According to my concept of the trait list, and its use as employed in the Wisconsin Archeologist, I cannot see that "... the use of the trait list is essentially a statistical technique and therefore must be treated as variables and be reported in terms of their frequency (p. 66)." Its value as a statistical figure would depend entirely upon the extent to which it represented the whole of cultural data applicable to the problem, on a percentage basis.

Statistics, employing the term in its most technical sense—when it is employed to do more than to enable a large mass of figures to be grasped as a whole, is useful when it permits indicative calculations which pertain to relative values. But the value of any probability curve depends upon accuracy of identity and quantity of instances. Trait lists, as we have employed them, do not represent the degree of analytical study essential to the establishment of detailed identity, and certainly do not represent quantity of occurrence sufficient to satisfy this statistical requirement.

The trait list is an initial grouping of elements in, or probably in the recognizable complex. The frequency of occurrence of items in such a trait list at any one site or locality has a value in direct ratio to the quantity of material data available for that site or locality, and to the frequency of use of such an item at any given time. In our own culture, for example, there is a considerable variability in frequency for

diamond rings, hairpins, gold watches, wire nails, pennies, gold coins, buttons, and the like; and yet a single button may warrant specific cultural assignment.

Consequently, it does not follow that we can only "... expect to be able to arrange our components (foci?), under ideal conditions, in some sort of developmental order by means of this varying frequency (p. 67)." This would only be true in instances when we find favorable conditions at a site, such as the presence of cultural material in abundance both as to quantity and variety. This will occur only at on occasional, exceptional site, or series of sites. Must we withhold all opinions as to cultural identity or relationship until such a site or sites have been found?

The taxonomy in which I am interested, and which is the taxonomy intended in the Midwestern method, is an initial, tentative framework to assist in the intelligent handling of categories of materials and other data. Consequently, it should be employed as soon as there is sufficient complexity of data to present a problem. That is its specific purpose. It permits of correction from time to time as increasing information may require. It permits of parellel classification on a basis of time, distribution, ethnic identification, or other factors. It is a rough working tool, not a finished framework for final organization.

As a specific example of the sins of the Midwest Taxonomic Method, Baerreis presents the tentative classification of the Red Cedar Focus as Hopewellian (p. 68). He points out that only a few traits are listed for this manifestation, that no copper is reported, and that on a basis of the exceedingly short trait list available, the classification under Hopewellian should be dropped until ... more evidence of differentiation ..." is available.

However, if you consider that the classification is a very tentative thing, one which may be changed at any time, one which only serves the purpose of pointing out that this manifestation, in terms of the traits which have been identified for it, is more like Hopewellian than anything else, but importantly different from other known manifestations of Hopewellian, the traits which are apparent for Red Cedar indicate

a much closer alliance to Hopewellian than to any other manifestation known in the state at the time, and yet suggest a local variety. This is even more apparent to one who is actually familiar with the data secured at the Red River sites. This classification, as in the case of any other classification, may be wrong in terms of information not at present available. But basically, our taxonomy is an initial procedure, not a final record. It is a working tool, not a means of organizing accomplished fact.

The initial classification of site after site in the Trempealeau Focus, therefore, is nothing more than an initial naming of something recognizable. Exactly what that something is in cultural terms has never been determined. Later efforts to reclassify in point of time, possibly to subclassify, is certainly most desirable. However, the proposed method of treating each individual mound as a site, and attempting cultural classification on the basis of data as secured from each mound (pp. 69-70), involves the mistake of over-emphasizing immediate occurrence or absence. We cannot expect to find sufficient traits in one burial mound to validate any classification. A given group of mounds is more comparable to a modern cemetery than anything else. Like the modern cemetery, it may represent a considerable period of time, but the contents are culturally significant just the same. As such they may be compared advantageously with the materials from another cemetery of like or dislike character. If the cultural characters manifested in several cemeteries from the same general region demonstrate a basically recurring compler, and an occasional recurrence of a type not uniformly present in every, or even in the majority of graves, such similarity has both cultural and historical significance.

Thus, the "limited distribution" in a single mound or other grave bears little significance. Grouping mounds culturally on such a basis would increase rather than decrease the probability of error in any conclusion. All graves in a modern cemetery would not possess the same surviving furnishings. Diamond rings might be exceedingly rare, whereas bobby pins might be very common. Nevertheless, they both might represent exactly the same cultural manifestation.

Specific trait lists for specific Hopewell mounds, or for specific graves in a cemetery, might in instances provide significant information, but this information would augment rather than vitiate the data defining the larger complex, whatever its final definition might be.

For example, is it the assumption that the absence of pottery in a single grave, or in a single mound implies that a pottery-less culture is involved? In effigy mounds, pottery is rarely present in a grave or mound, and yet we are certain that pottery is a component part of any cultural picture for the Effigy Mound Aspect.

The methodological approach presented in table 2 in Baerreis' article (p. 71), suggesting temporal phases of the Wisconsin Hopewell Culture is most interesting, but offers great risk of error. It certainly is no substitute for the taxonomic approach. Although the time may come, particularly in instances, when taxonomy will not be a necessary tool, we are not so advanced at the present time as to throw taxonomy out the window.

Baerreis seems to conclude (p. 71) that all the mounds which Thomas dug in Vernon and Crawford counties represent the Hopewell manifesaton. The Milwaukee Public Museum's work at these same sites indicates that the mounds excavated under Thomas' direction represents at least three distinct cultural manifestations: one which we have called Trempealeau Focus of Hopewellian, one which is certainly Effigy Mound—including both Effigy ond Linear structure, and one which has been tentatively classified as Woodland without further differentiation. It is no wonder that Baerreis finds a mixture of traits in these mounds. They certainly do not represent a single manifestation of any description. It is only fair to add that the information in question has never been published, and was not readly available to Baerreis.

The methods proposed by Baerreis offer promise of secondary approaches. As I stated before, they are not substitutes for an initial classification, so long as the latter is not considered to be final and sacred.

THE OKLAHOMA ECCENTRIC FLINTS *

In March, 1936 museums and collectors began hearing of the discovery of spectacular eccentric flint forms in Oklahoma. Nearly 4,000 were said to have been found in a mound by a half-breed Indian. At first some of the smaller specimens were sold at twenty-five cents each; eventually prices in the larger ones reached as high as $40.00 and $50.00 each.

In 1937 the University of Oklahoma attempted a careful excavation at the mound site. A few more eccentrics were found in a portion of the mound which had previously been disturbed. Hence it was not possible to draw any accurate conclusions.

In 1939 the Lithic Laboratory for the Eastern United States, under the sponsorship of the Ohio State Archaeological and Historical Society, subjected about 1,000 of the flints in question to a careful analysis. They were considered with respect to known prehistoric forms; the character of the flaking was compared to that present in thoroughly authentic aboriginal flints; and they were carefully examined for the presence of true patination.

The Laboratory concluded that: the Oklahoma flints are quite unlike any others found elsewhere, with the exception of Central America; that they are of modern manufacture, having been rechipped from flint blades of prehistoric origin. An old, weathered surface was found in nearly all specimens,

along with fresh surfaces where the shape had been altered by a modern workman. And finally, a number of small, loosely clinging flakes were discovered by means of a microscope in the re-chipped areas. All of these areas had been treated in some manner in an attempt to disguise the fresh chipping when viewed with the naked eye.

* Reprinted from the Tennessee Archaeologist, Vol. VI, No. 1

* * *

ARCHEOLOGICAL NOTES

In the past two years several of the more important objectives of the Wisconsin Archeological Society have been fulfilled. Two of the recommended archeological sites within the borders of our state have been purchased by the State of Wisconsin; namely Ancient Aztalan State Park near Lake Mills and Lizard Mound State Park near West Bend. At Aztalan, archeological field work is still in progress under the able direction of Prof. Chandler W. Rowe of Lawrence College, Appleton, Wisconsin. Many new and interesting discoveries are being made at the present time and these finds will considerably augment previous data collected from this important "Middle Mississippi" site. When all such data has been gathered to give a more comprehensive picture of this ancient fortification, immediate reconstruction work will follow. Such plans for reconstruction are now being considered. It is the purpose of the Forest and Parks division of the Wisconsin State Conservation Department to completely restore the pre-historic stockaded village. The site was the first to be recommended for permanent preservation by the Wisconsin Archeological Society because it represents the only known "Middle Mississippi" village in the state. It is also the most northern outpost of this cultural manifestation now known to exist in North America; hence, it is of great archeological value to the State of Wisconsin.

Lizard Mound State Park near West Bend, Wisconsin is the second archeological site recommended by the Wisconsin Archeological Society for permanent preservation. The park is rapidly nearing completion and will be ready for visitors soon. An entrance road, a generous parking area, sanitary

facilities, a good well, picnic tables and fireplaces have been installed. The Indian mounds have been cleared of brush and a foot trail has been built that is laid out so as to circulate the vistors to all the mounds. Some adjoining land still must be purchased before the park is completed. In this park is a group of fine Indian mounds of conical, linear, panther, bird and lizard in design. This is a compact and a representative group of effigy mounds and is one of the finest well preserved groups of mounds now remaining in the state. For this reason together with the comparative nearness to the most densely populated area in the state, it became imperative that the Wisconsin Archeological Society should immediately recommend its archeological value to the state for park purposes.

Meetings

All Wisconsin Archeological Society meetings are held on the third Monday of each month in the Con ference room, second floor, Milwaukee Public Museum. The public is cordially invited to attend. At most of these occasions, speakers are furnished who sometimes augment their talks with moving pictures or colored slides. Members have exhibited archeological or ethnological specimens from time to time. A director's and advisor's business meeting procedes the regular evening program that is scheduled promptly at 8:00 P. M. Since the January meeting of this year (1950) several important actions were undertaken by the society under the leadership of President Robert Ritzenthaler. A committee was appointed to acquire surveying equipment to be used for society field work. An excellent transit and stadia rod was purchased together with the necessary auxiliary equipment needed in survey work. This material is now in the custody of the secretary and said equipment will be loaned out for purposes beneficial to the best interests of the society. President Ritzenthaler has appointed a committee to prepare material dealing with Wisconsin archeology and which will eventually be published in a simple readable way so as to de desirable for children of school age. This will be a much sought after publication as the society receives numerous letters asking for

information relative to Wisconsin Archeology for school children.

The annual meeting of the Wisconsin Archeological Society is always held in March of each year. At this meeting a nominating committee appointed by the President presents a list of officers who will serve in their new capacities for one year. The membership at this time approves the list. Each new President has the power to appoint his own committees. The results of the last election of officers and advisors together with the appointed committees are always currently published in the "Wisconsin Archeologist."

At the May 1950 meeting of the society a letter was received from Dr. Clifford Lord, Director of the State Historical Society, in which he asked for the support of the membership of the Wisconsin Archeological Society in contributing money to the Charles E. Brown Memorial Fund. The late Mr. Brown had been secretary of our society for more than forty years, and was also one of its past presidents. He was nationally recognized and also greatly beloved by all who knew him. He is idolized by all students of state archeology and folklore, and he symbolizes the spirit and inspiration needed by young and old who pursue these fascinating fields of their choice. The Charles E. Brown Memorial Fund will be used to forward archeological investigations in Wisconsin and will be a most appropriate and effective method of perpetuating the name and life-time aim of Mr. Brown. The membership has since contributed generously to this fund and it is hoped that all will continue to do so.

At the June 1950 dinner held at Jacobus Park in Milwaukee, Mr. Herman O. Zander conducted an auction for the purpose of raising money for the fund. Thanks to Mr. Zander and all members participating in this auction of archeological specimens which were donated by the membership. A check of $78.90 was forwarded to Dr. Lord in charge of the Memorial Fund of which $53.90 represented the proceeds of the auction.

Committee Report

Mr. Joseph Ringeisen Jr., chairman of the Fraudulent Arti- Committee reports said committee has examined 3 bird stones, 2 banner stones, 1 boat stone and 1 stone pipe for the year ending March 1950 and found the bird stones and the single boat stone were frauds and the remaining artifacts were authentic.

Lapham Research Medal

Mr. Herbert W. Cornell presented the Dr. Increase A. Lapham medal to Secretary Kermit Freckmann for distinguished anthropological research. The presentation took place at the annual dinner June 19, 1950 at Jacobus Park, Milwaukee, Wis. Mr. Cornell cited the secretary's 24 years of activity in the Wisconsin Archeological Society and his work in surveying and preparing many of the plats of Indian Mound groups within the state. Mr. Freckmann became the 24th person so honored in the history of the society and the 6th non-professional person to receive the medal.

New Members

Franklyn Luebke, Iron Ridge, Philip Schlegel, West Bend, Frank Kozmeyer, Hatley, and Charlotte T. Bakken, Madison, Wisconsin were elected as annual members of the society in the past year.

In Memoriam

Your secretary regrets to announce the passing away of two of our very active members, Dr. Louis Buttles and Mr. Vetal Winn, both of Milwaukee. These gentlemen will be sadly missed by the membership as each had contributed greatly to the cause of archeology.

* * *

TO THE MEMBERS:

At the instigation of the State Historical Society and Clifford Lord, Director, a Charles E. Brown Memorial is being established. The Memorial is in the nature of a fund set up for the purpose of furthering research in Wisconsin Archeology.

It is the belief of the committee that this is the most ap-

propriate and effective method of perpetuating the name and life-time aim of Mr. Brown.

At the May meeting our Society pledged its support. It was decided to pool our efforts and contribute to the fund as a group project in the name of the Wisconsin Archeological Society. Your contribution should be sent to our Secretary:

Mr. Kermit Freckmann
4240 N. 36th Street
Milwaukee, Wisconsin

Please act now. Remember, your contribution not only honors one of the best loved men in the field of Wisconsin archeology, but also will actively aid in furthering archeological research in Wisconsin.

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Robert E. Ritzenthaler

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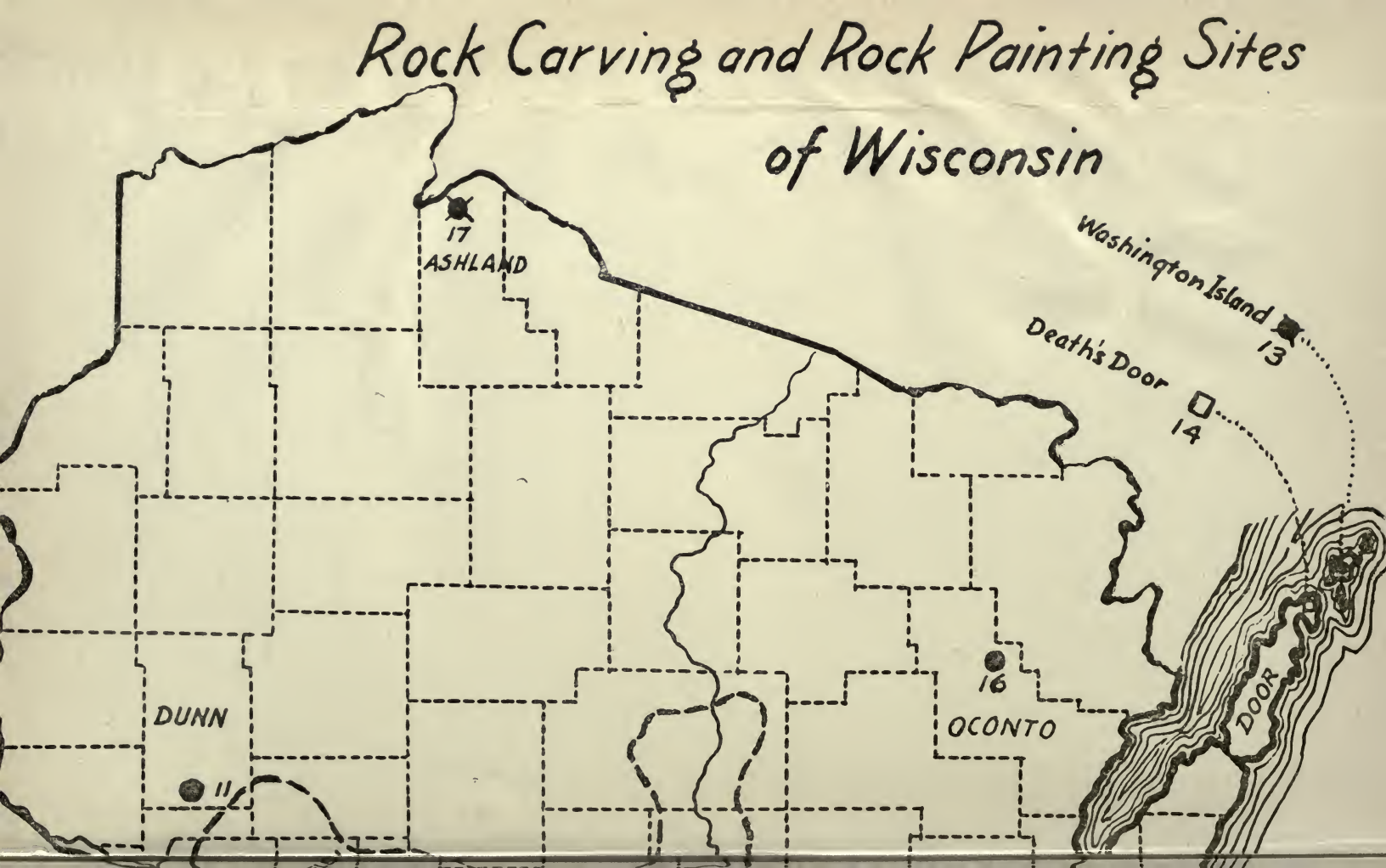
Rock Carving and Rock Painting Sites of Wisconsin



1. TREMPELEAU ROCK SHELTER
2. GALESVILLE ROCK SHELTER
3. GALE'S BLUFF CAVE
4. SAMUEL'S CAVE
5. LARSON CAVE
6. INDIAN CAVE
7. TWIN BLUFFS
8. LEMONWEIR GLYPHS
9. DISCO ROCK SHELTER
10. GULLICKSON ROCK SHELTER
11. DUNVILLE GLYPHS
12. FRIENDSHIP GLYPHS
13. WASHINGTON ISLAND GLYPHS
14. DEATH'S DOOR
15. PAINTED ROCK
16. ARMSTRONG GLYPHS
17. ODANAH GLYPHS
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WISCONSIN PETROGLYPHS AND PICTOGRAPHS

By Robert E. Ritzenthaler

The purpose of this paper is to gather together all available information and illustrations on Petroglyphs and Pictographs found in Wisconsin, to determine their number, distribution and possible cultural affiliation. In this report the term "petroglyph" will refer to carvings on rock, and "pictograph" to mean paintings or drawings on rock, and "Petrograph" to include both.

While prehistoric American Indian rock carvings and drawings are to be found in most areas of the United States, the area of greatest concentration is in the Southwest, especially the States of Arizona, New Mexico, Colorado, and Utah; and in the California-Nevada area. Steward [1] reports 280 petrographic sites for the four States of California, Nevada, Utah, and Arizona.

Petrographic sites are relatively rare in the Mid-Western area, and for Wisconsin, only 18 such sites have been reported. Of these, at least four are no longer extant. Wisconsin rock carvings and drawings are to be found in caves and rock shelters, on lake and river bluffs, and on other exposed rock. For the most part the petroglyphs occur in the upper Cambrian sandstone caves and rock shelters of the Driftless Area in southwestern Wisconsin. Of the 15 known petroglyphic sites, 11 are in the Driftless Area. This distribution coincides with the distribution of the soft Upper Cambrian sandstones which are ideal for carving as attested by the huge assortment of

[1] Steward. Julian. Petroglyphs of California and Adjoining States. U. of Calif. Am. Arch. and Ethn. Vol. 24, p. 54.

modern engraved initials. Of the three reported pictographs one occurs within, and two outside, the Driftless Area.

The great majority of the rock pictures are realistic representations of birds and animals, but wholes and parts of humans, geometric designs, and apparently meaningless "doodlings" are found to a limited extent. They range in size from very small, such as the animal figures at the Lemonweir site in Juneau County which are only a few inches in length, to a size of over four feet, a catfish at the Gullickson rock shelter in Jackson County measuring 4 feet 3 inches in length.

Little is known about rock paintings in Wisconsin. Of the three sites reported, information is very vague on two, and the lack of illustrations and verification leaves them in the category of the dubious. The third site, discovered in 1949 near Mayville, is well documented by photographs and descriptive details. Based on the information obtained at this site Wisconsin rock paintings were small, crudely realistic representations of man, animals, and birds done in both outline and solid with a resin-like paint black in color due to addition of carbon probably in the form of charcoal. The evidence points to a historic dating for the rock painting, while the rock carvings apparently were done during the prehistoric period in Wisconsin.

The method by which the petroglyphs were done is simple. The outline was carved into the rock probably by means of stone knives or engraving tools. The depth of these incised lines varied from 1/16 to 1/8 inches at the Twin Bluffs site in Juneau County which might be taken for an average; although at the Gullickson site in Jackson County the incisions were as much as ½ inches deep, and Brown [2] mentions a depth of "nearly ½" for some at the Lemonweier site. The majority of glyphs are no more than incised outlines, but in some cases the area between the lines were hollowed out by carving, forming an intaglio. No examples of pecking, the technique so widely employed in the Southwest, are known for Wisconsin.

[2] Brown, C. A. 1937—p. 78

FIGURE 1. Woodland Artifacts from the Gullickson Rock Shelter

The Wisconsin petroglyphs vary considerably from site to site as to quality, artistic style, and subject matter portrayed. Some of this variation is undoubtedly due to individual indifferences in ability and imagination within the same group. On the other hand, the extreme differences at some of the sites indicate that the Wisconsin glyphs were done by at least several different cultural groups. The hands with outspread fingers pictured at the Trempealeau rock shelter occur only there and seem unrelated to any other glyphs in the State. The rows of so-called "stick-men" at Larson Cave are also unique. This is the only site where human figures are single line intaglio caricatures. In fact, they resemble the stick-men very common in the Southwest more than anything else. (Compare Osburn p. 30) The hodge-podge of diagonal, vertical, and curved lines, plus some rather vague geometric patterns occurring at Gale's Bluff Cave appear unrelated to any other glyphs in Adams County. Finally, the group of human figures at Indian Cave apparently engaged in some sort of ceremony are the lone example of group activity. McKern sees a resemblance in style and concept between these glyphs and the Plains Indian Winter Counts. (McKern, 1947.) The remaining petroglyphs in the State fall into a general pattern with a consistent realistic portrayal of certain recurring animals, fish, birds, and human figures, and could well represent the work of one cultural group. In summary, it may be noted that for the comparatively few petroglyphs occurring in Wisconsin there is a remarkable variety pointing to the conclusion that they were the work of several different prehistoric cultures.

The evidence of tie-ups between particular glyphs and a definite culture is scanty and nebulous, although there are a few helpful clues. There are two methods of establishing such relationships. First, the excavation of the floors of caves and rock shelters where glyphs exist provides at least indirect evidence that the people who occupied the cave, as attested by thhe artifacts they left behind, also did the rock carving. This is not necessarily true, but is a plausible assumption, and the method has born fruit in Europe where the

paleolithic cave paintings have been identified as to culture by means of information secured by excavation of floors of caves where paintings exist.

At only two sites in Wisconsin have artifacts been found at petroglyphic sites. The best evidence is from the Gullickson Rock Shelter in Jackson County the floor of which was excavated in 1933 by C. A. Brown, D. A. Blencoe, et al, who recovered artifacts definitely belonging to the Woodland culture.[3] Within a foot of the surface of the rock shelter floor were found quartzite knives (or scrapers) rubbing stones, a fragment of the shank of a pottery pipe, and cord-marked potsherds (Fig. 6). Knowing that a Woodland people occupied this shelter it is a plausible assumption that they also carved the petroglyphs on the walls.

In 1879 the floor of Samuel's Cave in LaCrosse County was trenched by Dr. J. A. Rice of Merton. Unfortunately the excavated materials, supposedly sent to the State Historical Museum, cannot be located for examination, but the reports by Dr. Rice and Rev. Brown contain some revealing descriptions of the artifacts.[4] Four ash layers were encountered the second and third of which contained pottery "made of clay and pounded shells." A shell-tempered pottery in this area would logically be of Upper Mississippi origin, and the finding of numerous bivalve shells and a bone awl further incate that this cave was inhabited by an Upper Mississippi people, who could well have been responsible for the rock carvings. That the Upper Mississippi culture has been demonstrated to merge into the culture of historic Siouan-speaking tribes such as the Winnebago and Chiwere Sioux is a fact leading us into the next point.

The second method of establishing associations between prehistoric rock carving and historic tribes is by a comparison of art styles of each. While it is not known that the Chiwere

[3] Brown, C. A. State Archeological Survey Report on Jackson County. Rocck Shelter, Sept. 5, 1933. On file at State Hist. Museum, Madison, Wisconsin.

[4] Rice, J. A. Additional Notes on the Pictured Cave. Wis. Hist. Coll. Vol. 8, pp. 184-5. See also, Brown, Rev. Edward in same volume p. 176.

Sioux had calendrical pictographs on hides called "winter counts," their Siouan-speaking neighbors to the west made use of them. Those, for example, pictured in Mallery [5] for the Sioux bear striking similarities to the petroglyphs at Samuel's Cave and Indian Cave both in art style and subject matter presented. Such similarities as men in the act of shooting animals with bow and arrow, wounded or slain animals, and feathered headresses on men, all of which are portrayed in synonomous art styles, suggest a common source.

An even more precise similarity exists between the carvings at some of the petroglyphic sites, and the pictures in use by prehistoric Woodland peoples such as the Chippewa and Menomini. Animal, and especially thunderbird figures on Chippewa Midewiwin birch-bark scrolls [6] closely resemble those at such sites as Twin Bluffs, and the Gullickson Rock Shelter. Although the chief use of these symbols by historic tribes was as mnemonic aids for songs and ritual in the Medicine Dance, or on the mnemonic boards of shamans to aid in the remembering of magical songs, such symbols were also used by Indians as signatures on early historical documents. The Indians who could not write would draw symbols, usually bird or animals, in place of a signature. Some of these symbols, especially the thunderbird, found on early land treaties of the Menomini Indians during the 1790's are almost precise duplications of those at petroglyphic sites (Figs. 2 and 3). There is also some correspondence between symbols and Woodland woven bags and petroglyphs. These similarities plus the archeological evidence from the Gullickson Rock Shelter are strong evidence that the Woodland peoples were responsible for carving the glyphs at certain sites. The fol-

[5] Mallery. 1893, pp. 292-295.

[6] Hoffman, W., 1891. pp. 284, 264, 245, thunderbird; p. 297, wading bird; p. 166, bear.

at ten o'clock in the evening. The said Lemoine has declared that he could not sign his name, and has made his mark, with the undersigned, who has signed after hearing this paper read; and the Savages have also made their marks.

his
JEAN Bte. × LEMOINE
mark

CHLES. REAUME[1]
Justice of the Peace

ETOAI KISIQUE METCH OSAKIE

[G. L. P., LVIII: 12.]

FIGURE 2. Symbol Signatures on Historic Indian Documents.

[illegible] this Eighth day of August in the year of our Lord [illegible] One Thousand Seven hundred & Ninety four. Also a piece [illegible] of land situate on [illegible] other side of the Riviere Containing [illegible] Nine Acres in front on one Hundred in depth, clear of all [illegible] incumbrances as the above mintioned tiniment on [illegible] other [illegible] side of the River.

L. FILY[1]
Witness CLAUDE + CARON

Witnesses
GEORGE GILLESPIE[2] THOMAS + CARON[3]
JEAN ECUYER
witness CHIATCHE ANGUEMAN

ALEXR. KENNEDY
Gt. LAGOTERIE
witness

ATAWOINABIE

[G. L. P., LVIII: 2.]

FIGURE 3. Symbol Signatures on Historic Indian Documents

lowing is a tentative cultural classification of Wisconsin Petroglyphs based on these two methods.

WOODLAND
- Twin Bluffs ..... Juneau County
- Galesville ..... Trempealeau County
- Gullickson Rock Shelter ..... Jackson County

UPPER MISSISSIPPI
- Samuel's Cave ..... LaCrosse County
- Indian Cave ..... Richland County
- Lemonweir ..... Juneau County

RELATED TO ONE ANOTHED, BUT UNCLASSIFIED
- Friendship ..... Adams County
- Gales Bluff ..... Trempealeau County

UNRELATED AND UNCLASSIFIED
- Trempealeau Rock Shelter ..... Trempealeau County
- Larson Cave ..... Vernon County

No attempt was made to classify rock paintings because of the lack of illustrations and descriptive details on two of the three reported sites. About all that can be said is that the Mayville rock paintings suggests an affiliation with Plains culture based on the fact that a tipi is represented, and one of the men is wearing what might be construed as being a feathered headdress.

The dating of Wisconsin petroglyphs is an impossible task. About all one can say concerning their age is that they are prehistoric, which in this area means at least 300 years old. The reason for this belief rests on the fact that they were reported by early French explorers, and historic tribes had no memory of doing them.[7] Also, the patination on petroglyphs is heavier than on early dated inscriptions, which suggests antiquity.

[7] An apparent exception to this is the statement Mallery got from an Ojibwa Indian to the effect that the site of the Odanah glyphs was a former halting place and rendezvous. with the implication that this was the case in relatively recent times.

The reason why Indians carved these petroglyphs is not known. Modern Indians are often wont to give an explanation, but such interpretations must be taken with extreme caution, and to date done of these have proven acceptable. For example, Malley in 1887 got the following explanation concerning the Odonah petroglyphs: "An old Ojibwa in the vicinity told the present writer that the site of the rock was formerly a well-known halting place and rendezvous, and that on the arrival of a party, or even of a single individual, the appropriate totemic mark or marks were cut on the rock, much as white men register their names in a hotel."[8] Such an explanation might account for the glyphs at that site, although more evidence is needed to prove even that. However, even if true, this explanation would not account for the majority of others which are in relatively inaccessible places like caves and other inconvenient spots unlikely for use as halting places or rendezvous. It also seems apparent that if this was a cultural practice of the Woodland Indians one would expect to find numerous examples of such rock carvings all over the State, and such is certainly not the case. There is, however, some ethnological evidence pointing to the possibility of some of the petroglyphs being individual, tribal, or totemic identification symbols. As has been previously pointed out, symbols similar to the glyphs have been used on historic Indian land treaties as signatures of individual Indians. The bird or animal totem of a deceased person was carved or drawn on a grave stake by such tribes as the Menomini and Chippewa. That some of the glyphs have religious or magical significance is also a possibility. Those at the Indian Cave site picture a group of Indians apparently engaged in some sort of ceremony. The portrayal of wounded animals and men in the act of shooting animals with bow and arrow, as at Samuel's Cave, might conceivably have had some religious or magical significance. That some of the birds and animals carved on rock could be spirit-gods is also suggested by similar symbols representing spirits occurring on

[8] Mallery 1893 p. 125

the sacred birchbark mnemonic scrolls in use in modern Woodland Indians in the Medicine Dance and on the mnemonic records of the shamans used in hunting, fishing, and love magic. That some of the glyphs represent pure art, without practical purpose, is another likely hypothesis. While any or all of these reasons are good possibilties, the true purpose that lay in the minds of the peoples that carved the petroglyphs will never be known.

The following is a compilation of data from all known petrographic sites in Wisconsin.

ADAMS COUNTY

The Friendship Glyphs. Petroglyphs. (Fig. 4)

Location: Preston Tnshp., 2 miles north of Friendship.

Description:

> "The native pictographs shown in Plate 5 are cut into to the south side of a sandstone bluff located about two miles north of the village of friendship. Their Indian origin is not questioned by residents of the vicinity, but no explanation of their age, purpose or significance is available. The characters consist of crowfeet, arches and curved and straight lines. Above and about these vandalistic and thoughtless white visitors to this site have cut and scratched their names and initials."

Reference: Cole, H. C. and Smythe, H. A., Adams County, Wis. Arch. O. S. Vol. 18, No. 2, pp 70-71. April, 1919. Ill.

Present condition: Not checked. Mutilated in 1919.

Probably cultural affiliation: Unknown.

ASHLAND COUNTY

Odonah Glyphs. Petroglyphs.

Location: On shore of Lake Superior near Odonah.

Description:

> "A large number of glyphs are incised on the face of a rock near Odonah, now a village of the Ojibwa Indians, 12 miles northeast from Ashland, on the south shore of Lake Superior, near its western extremity. The characters were easily cut on the soft stone, so were also easily

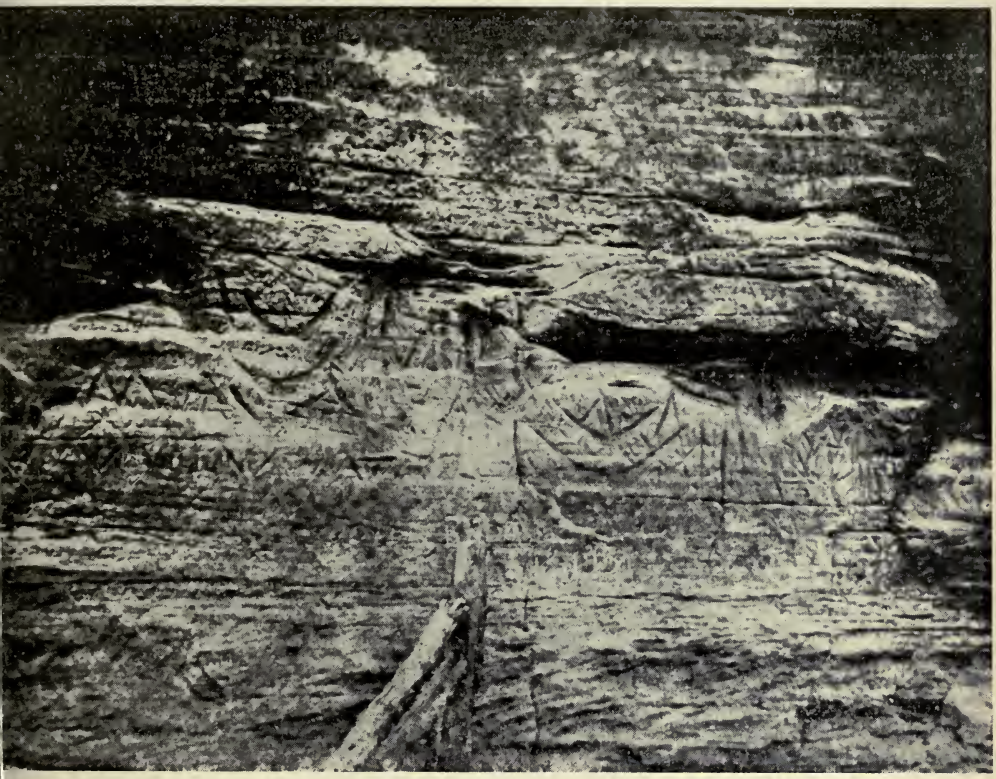

FIGURE 4. The Friendship Glyphs.

worn by the weather, and in 1887 were nearly indistinguishable. Many of them appeared to be figures of birds. An old Ojibwa Indian in the vicinity told the present writer that the site of the rock was formerly a well-known halting place and rendezvous, and that on the arrival of a party, or even a single individual, the appropriate totemic mark or marks were cut on the rock, much as white men register their names in a hotel."

Reference: Mallery, G. Picture-Writing of the American Indians. B. A. E. Ann. Rep. No. 10, p. 126. No. III.

Present Condition: Not personally checked. Reported as almost indistinguishable in 1887, and by now probably completely obliterated.

Probable cultural affiliation: Woodland.

CRAWFORD COUNTY

Painted Rock. Pictographs.

Location: "A short distance above Prairie du Chien."

Description:

"'Painted Rock' a short distance above Prairie du Chien, daubed over by the Indians with emblematic characters, and renewed from time to time. Mentioned by L. H. Bunnell, Winona and Environs (1897) p. 154." (This reference could not be located.)

Reference: Brown, C. A., A Record of Wisconsin Antiquities. Wis. Arch. O. S. Vol. 5 No. 3 and 4, page 304. No illustration.

Present Condition: Not checked.

Probable cultural affiliation: Unknown, but apparently the work of historic rather than prehistoric Indians.

DODGE COUNTY

Mayville Rock Paintings. Pictographs. (Fig. 5)

Location: adjoining rock shelters two miles southwest of Mayville.

Description:

"A group of five Indian rock paintings, probably the first to be found in Wisconsin, were discovered in late summer by a group of pupils from the Ledge School, about two miles southwest of Mayville, Wisconsin. More precisely, these pictographs are located in the extreme NE corner of the TE quarter of Section 33, T12N, R16E, Williamstown Township, Dodge County. It has been a known fact for many years that Indian pictures and carvings existed on some of the rock walls of the various rock shelters, and so-called caves of the Mayville Ledge, located on the farm of August Luebke, but it remained for Ronald Guptill, Arlen Schellfeffer and Sherwin Fischer to relocate them. I asked these three boys to guide me to the paintings, and they lost no time in getting started, climbing abruptly up a rugged slope, to the highest part of the cliff-like area of the ledge, towering about two hundred feet above the surrounding country.

Upon arrival at the crest, they went into a huddle to get their bearings. After a brief interval, they crawled down into a winding cave about twenty feet long, with a six inch opening near the top. Near the end of this cave, on the south wall, we saw the paintings. They are on a relatively smooth part of the dolomite limestone wall, and about five feet above the floor of the cave. The color of the paint is black, with a very faint touch of black-maroon edging, and a slight metallic sheen overcast. At first glance, it appeared to be of mineral origin, but to be assured, I had it analyzed from a drop which the prehistoric artist spilled on the rock immediately below the painting. The results showed no trace of manganese, minerals which I had believed present, but instead an organic material, a resin-like substance resembling tar. The dark color was due to carbon. We are making additional analysis of this paint, which had penetrated into the rock for a distance of two m.m.

The first of these groups showed a tepee, with the poles projecting beyond the top, and with a curved base. The tepee may indicate that the art was done by some branch of the Sioux Indians. The Plains Indians used this type of dwelling. Next to the tepee, an Indian is shown with four feathers on his headpiece. He is aiming with bow and arrow at an animal which resembles a moose. The tepee is three and one half inches high, and three and one-quarter inches wide at the base. The hunter is four and one-quarter inches high, and seven-eighths of an inch wide, using a three and one-quarter inch bow. The "moose" is two inches overall.

While making a sketch of these paintings, I suggested to my guides to explore further, in an adjoining cave. About ten minutes had elapsed when loud "Whoopees" came through a narrow crevice near the floor of the cave. This opening is about twenty inches in diameter and leads to another cave about fifteen feet to the south. The entrance from the top of this second cave is very

narrow and it revived memories of Floyd Collins. I called down to the boys, as to my chance of getting through. After some hesitation a very weak reply came forth. "We think so." That was enough assurance, and it was worth the struggle to join them. The boys had located two more paintings. These are crudely executed and appear to me as two views of a turkey, one frontal view and a side view of a strutting bird, with his tail feathers held high."

Reference: Bruder, Dr. E. G., The Mayville Indian Rock Paintings. Wis. Arch. N. S. Vol. 30, No. 4, 1949. 2 Ills.

Present Condition: Excellent.

Probable cultural affiliation: Historic Plains.

DOOR COUNTY

1. Washington Island Glyphs. Petroglyphs?

Location: At Lobdill's Point, Detroit Harbor on Washington Island.

Description:

"Pictograph rocks are mentioned in the Record (p320) as having existed on the rocky bluff near Death's Door. at the head of Green Bay penninsula, and also at Lobdill's point, on Washington Island. It is to be regretted that no photograph or drawing of these was ever made, for the probabilities are that they have now disappeared.

The one on Lobdill's point is located on the authority of Mr. B. L. Anderson. Unfortunately he was absent from the island at the time this reconnaissance was being made. The limestone ledge of the beach surrounding this promontory is of such slight elevation above the water as not to admit of drawings being made which would be out of reach of waves.

Farther north along the shore, where 'Pictograph Rocks' is marked on the map, the bluffs are sheer. According to Mr. A. A. Koyen a few years ago there were several Indian drawings on the rock walls at this place, but the wash of the water undercut the ledge and the surface cracked off and fell into the lake. He described one drawing on this cliff as depicting three or four

men chasing some large animal. This he had viewed from the ice. He remarked that it was at about the height above the water that a man could conveniently reach by standing in a canoe lying at the base of the rocks."

Reference: Fox, George R. Indian Remains on Washington Island. Wis. Arch. O. S. Vol. 13 No. 4, p. 171. No. III

Present Condition: Apparently destroyed.

Probable cultural affiliation: unknown.

2. Death's Door Glyphs. Pictographs.

Location: Liberty Grove Township "on face of a rocky bluff near Death's Door Passage, at the hehad of the Green Bay Penninsula."

Description:

"On the face of the rocks fifteen or twenty feet above the surface of the water, there are figures of Indians and canoes painted Indian fashion, which must have been done with much difficulty, and by the help of scaling ladders, during a dead calm on the Lake."

Reference: Stambaugh, S. Wis. Hist. Coll. Vol. 15, P. 424, no illustration.

Present Condition: Unknown.

Probably cultural affiliation: Unknown.

DUNN COUNTY

1. Dunnville Glyphs. Petroglyphs?

Location: Dunn Township, near village of Dunville.

Description:

"On the rocks near Dumaville (Dunville) Wis., are figures of canoes and animals."

Reference: Brown, E. L., Abstracts from Anthropological Correspondence (O. T. Mason Ed.) Smithsonian Rep. 1882, p. 826, no illustration. Also noted in Brown, C. A. p. 320.

Present Condition: Unknown.

Probable cultural affiliation: Unknown.

JACKSON COUNTY

1. Disco Rock Shelter. Petroglyphs.
   Location: Albion Township. "Rock shelter with petroglyphs on the west bank of a gorge near Disco, ten miles southwest of Black River Falls."
   Description: None.
   Reference: Brown, C. A., Fifth Addition to the Record of Wis. Antiquities. Wis. Arch. N. S. Vol. 4, No. 1, p. 59, no illustration.
   Present Condition: Unknown.
   Probable cultural affiliation: Unknown.

2. Gullickson Rock Shelter. Petroglyphs. (Figs. 6 & 7)
   Location: Irving Township, Sect. 5, R. 20N, 5W, on Gilbert Gullickson farm. On the north side of stream running into Trout River.

   Description:

   The Gullickson glyphs occur in a tiny canyon about 2 miles southeast of the village of Disco. They are best seen from a ledge about 20 feet above the stream bed, and occur at approximately eye-level on the sandstone escarpment which projects some 25 feet above the ledge. The glyphs occur in three groups covering a total distance of 40 feet and include 14 figures as follows: 4 deer, 2 human, 2 catfish, 1 thunderbird, 1 wading bird, 1 mammal and three unidentified figures (perhaps fish). All are incised in outline except for the thunderbird which has an incised head, but an intaglio wing (the other wing is obliterated). The incising varies from ⅛ inches in depth to ½ inches in depth in case of one of the catfish, but the majority are about ¾ inches in depth.

   From west to east (left to right in the photographs) the first carving is a human figure 9 inches tall. To the right is a 28 inch long deer, and below the deer are 3 small ovoid figures and what appears to be a wading bird with the head and neck obliterated. Below these are 2 carvings of deer with oblique, parallel lines incised on

the bodies. Above the deer is the half-obliterated thunderbird with an intaglio wing. To right on a flat, indented section of rock is the second group of petroglyphs consisting of 2 large catfish. The first is 51 inches long, quite well done, and well preserved. The second is about 54 inches, although the head is partially obliterated and it is difficult to determine the exact length. To the right is the third group consisting of the upper part of a human figure 11 inches high; a mammal, perhaps a wolf, 14 inches high from nose to tail; and an excellently done deer head 32 inches long.

The Gullickson glyphs represent the finest examples of deer and catfish in the state. The glyphs occur in an attractive and accessible setting, and very little would have to be done to turn the area into a very interesting and scenic public park.

Reference: Ritzenthaler, 1950 Field Trip.

Present Condition: In excellent condition in 1950, although they are not enhanced by the modern initials.

Probable cultural affiliation: Woodland.

JUNEAU COUNTY

Lemonweir Glyphs. Petroglyphs. (Fig. 8)

Location: Kildare Township, Section 24, at Golden's Resort. On Platt map glyphs are on property of Leo Golden. The glyphs occur near path along bottom of west bluff of the Wisconsin River just below mouth of the Lemonweir River.

Description:

"On Saturday, September 4th, the writer visited a series of Indian petroglyphs located at Golden's Resort, on the bank of the Wisconsin river, at the mouth of the Lemonweir river. This locality is about five miles east of Lyndon, in Juneau County, Wisconsin. Rev. Christian Hjermstad of New Lisbon, The Wisconsin Archeological Society's active investigator in this county, called the writer's attention to these rock sculptures in a letter written on June 17, 1937.

Mr. Leo Golden, proprietor of this attractive isolated resort, took the writer and his party down the rather steep walk to the river bank to see the carvings. These are cut into the surface of a weathered gray sandstone wall of a picturesque rocky bluff at an elevation of about thirty feet (up a slope) from the water's edge of the Wisconsin river. At a distance of about ten feet above the sandy floor of the rock surface on which the picture writing is in view, a narrow rock canopy protrudes from the rock wall, making a sort of rockshelter of the site. The bluff rises to an estimated height of about sixty feet above the river below. About forty of the Indian characters cut into the wall are at the present time undecipherable as to their significance. The seven crude animal-shaped figures appear to be intended to represent a fish, deer or elk, thunderbird, heron or crane, buffalo, lizard, and deer or antelope.

The deer measures 5¾ inches in length and is 4¾ inches high. A tree-like protuberance on top of its head probably represents its antlers. Several diagonal markings are on its body. The fish is a rather faint carving and is 4½ inches long and its body 1⅛ inches wide at its widest part. The thunderbird is a crude representation of these mythical birds such as is sometimes seen on Indian implements, pipestems, etc. Its height is 3½ inches and its wingspread 4 inches.

The heron or crane is 8 inches high and its body 1¼ inches wide. The buffalo figure is 7 inches long and 4 inches high. Its measurement from the bottom of its rear legs to the tip of the long curved tail is 6½ inches. The body of this animal also bears a number of diagonal stripes. The lizard-like animal with a curved body is 7 inches long and 3½ inches high.

These petroglyphs, which may be prehistoric, have ben known to an old settler of the vicinity, Mr. Golden informed the writer, for about 80 years and to his father before him. The several photographs of the rock taken

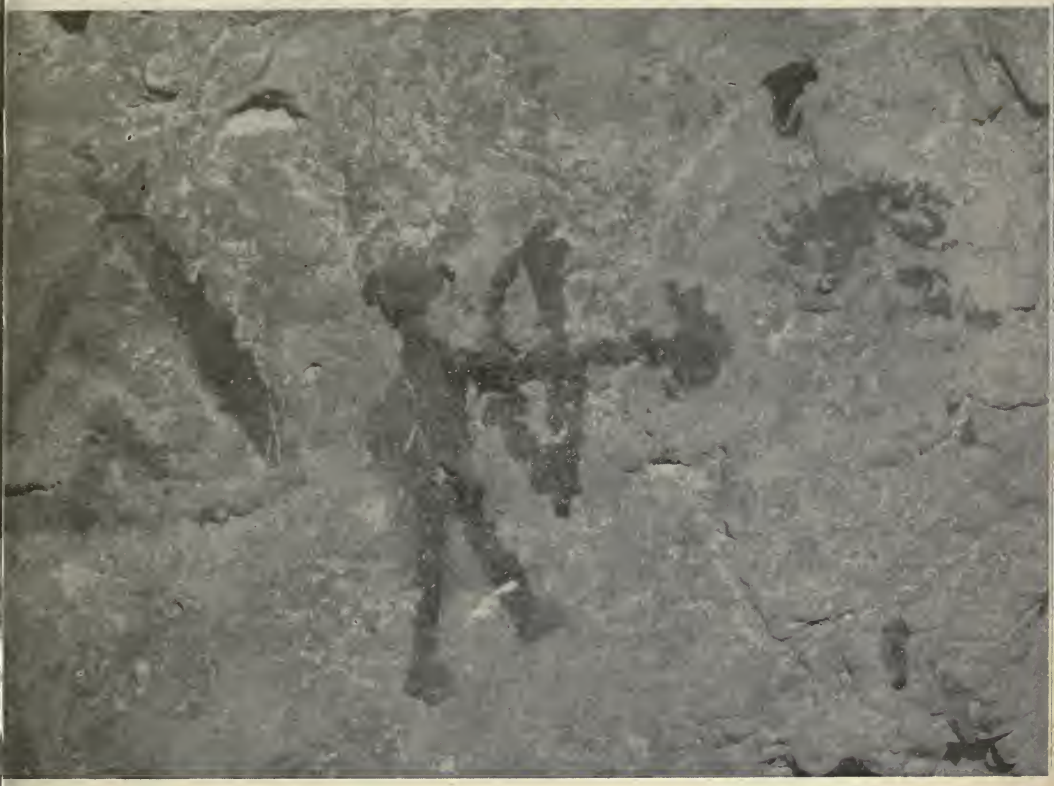

FIGURE 5. The Mayville Rock Paintings

by Mrs. Brown give a good idea of this interesting locality. While the writer was making sketches and measurements of the carvings she was busy with her camera. Taking satisfactory pictures was difficult because of the slope and the narrow floor area at its top.

The weathered gray surface of the sandstone rock was green in places with moss and lichen and stained red in others by the iron deposits above. It is said, that in former years some of the animal figures showed traces of having been painted with this iron ore. Whether they were or not cannot now be determined with certainty.

A measurement taken with a steel tape showed the

length of the rock surface covered with Indian carvings to be twelve feet. The height of this surface was from 1½ to 3½ feet. Most of the carvings are quite definite, but some are now rather faint. Here, as at most other petroglyph localities located in southern Wisconsin to date, the white man initial cutter has left his marks mutilating some of the pictures and hieroglyphs. As some of this was done years ago it is difficult in some instances to determine which are the original Indian and which the recent rock carvings.

The antelope or young deer is 12 inches long and 12 inches high. Of these animal representations, the large deer or elk and the buffalo are the best; the fish is the most poorly cut.

A curious figure in this display of petroglyphs is the one resembling an inverted tree with seven branches. There are seven cross-shaped carvings, one being of the sawbuck form. Crowfoot-shaped figures are three in number. A carving directly above the thunderbird figure may be an uncompleted or mutilated figure of the same character.

Some of these carvings are at the present time nearly one-half inche deep, others are more shallow and faint. These carvings in the rock surface may have been cut with a pointed stone tool or the sharp edge of a stone. Some may have been rubbed into the rock. Other cutting or rubbing tools may also have been employed.

Another group of petroglyphs is cut into the top and one side of a large weathered sandstone boulder lying about 2½ feet from the base of the rock wall containing the petroglyphs above described. This boulder measures 7 feet in length and is 4¼ feet wide at its widest part. The surface occupied by the petroglyphs is 6 feet long and 2½ feet wide. Most of these carvings are deeply cut and quite well preserved. They have not been mutilated by visitors to the site. There are no animal figures among these carvings; all are vertical, horizontal and diagonal lines or cuts, most of them arranged in various characters

or combinations. No casts were made of either the carvings on the wall or rock during this visit to the Golden site."

Reference: Brown, C. A. Wis. Arch. N. S. Vol. 17, No. 4. pp. 75-78.

Present Condition: Fairly well preserved. Examined by the author in 1947.

Probable cultural affiliation: Woodland?

2. Twin Bluffs. Petroglyphs (Fig. 9)

Location: Fountain Township, S. W. ½ of Section 11, at Twin Bluffs 3 miles west of New Lisbon.

Description:

"This article is intended to record a previously known, but unrecorded group of prehistoric Indian rock carvings in the central part of Juneau County. These petroglyphs, perhaps the finest extant in the State, were brought to our attention by Mr. Harry A. Mortensen of New Lisbon. They are to be found on the southwestern wall of the northernmost of the Twin Bluffs in Fountain Township, S. W. ¼ of Section 11, about three miles west of the town of New Lisbon. The carvings occur about one-half way up the 230-foot bluff, but the ledge just below them, and a talus slope to the base of the bluff affords easy access.

"The glyphs cover an area nine feet wide and seven feet high. The eight figures include five thunderbirds, one wading bird, one mammal, and one triangular remnant. The first one, reading from left to right (see illustration), is an unidentified mammal 4½ inches high, and 12½ inches from nose to tip of tail. While it actually looks more like a modern cow, it conceivably could have been meant to be a buffalo in consideration of the horns, hump, and lowered head. The next figure to the right is a crudely done thunderbird with a wingspread of 12½ inches, and height of 11½ inches, with intaglio head and body. The next thunderbird, also rather crude, and with most of the head obliterated, has a wingspread of 15¾

inches, and a height of 12 inches. Below this is a trianguloid with vertical parallel lines. The lower portion fades out suggesting that this is a portion of a once larger glyph, but there were no clues as to its former shape. The next thunderbird, above and on the adjoining rock face, is rather well done. It is 14½ by 15¼ inches with an intaglio head but not body. The thunderbird to the right is the finest example in the State. It is the largest figure in this group with a wingspread of 25½ inches, and a height of 13½ inches with intaglio head and body. It differs from the others in having a vertical line with two inverted "V's" through the middle of the body, which appears to be a conventionalized representation of the backbone. Above the left wing is an incised wading bird, perhaps one of the heron family. It is 4 inches wide, and 10 inches in height with most of the head obliterated. The final thunderbird is fairly well done with intaglio head and body. It has a wingspread of 16¾ inches, and a height of 12½ inches. Although these are of average size for petroglyphs in the State, I was struck by their relative smallness.

"The carving was done presumably with stone tools by incising the outlines 1|16 to ¼ inches deep. On most of the thunderbirds the heads and bodies were hollowed out with knife or scraper forming partial intaglios. This St. Croixan, Upper Cambrian sandstone is soft and friable, making carving easy. The purpose of these carvings is not known, although a prevailing hypothesis is that some, like the ones in this group, were totemic representations. There has been no actual tie-up between petroglyphs and prehistoric cultures, or historic tribes, but it has been assumed that they were the work of prehistoric peoples because they were reported by early French explorers, and historic tribes had no memory of doing them. Also, the patination on petroglyphs is heavier than on early dated inscriptions, which again suggests antiquity.

"We chalked in the incised outlines for photographic purposes, and obtained good kodachrome and black-and-

white pictures. After each figure was measured, plaster casts were taken. The casts and photos are now on file at the Milwaukee Public Museum.

"The writer was very impressed with the possibilties of Twin Bluffs as a future State Park. Besides its natural beauty it houses not only an excellent example of Wisconsin prehistoric art, but one of the few remaining petroglyphs sites in the State. Twin Bluffs has also an exciting geological background. These weather-resisting, dolomite-topped crags jutting out from the level landscape were left behind in the southward and westward retreat of a huge escarpment under the attack of wind and water. When the escarpment later formed the westward bank of glacial Lake Wisconsin, the isolated, castellated rocks like Twin Bluffs projected from the water as islands."

Reference: Ritzenthaler, R. Wis. Arch. N. S. Vol. 28, No. 3. 1 illustration.

Present Condition: Excellent in 1947 (Ritzenthaler)

Probable cultural affiliation: Woodland.

LA CROSSE COUNTY

1. Gale's Bluff Cave. Petroglyphs. (Fig. 10)

Location: At Gale's Bluff near city of La Crosse.

Description:

"On the eastern border of this prairie (LaCrosse) are some very high bluffs, presenting towards the top perpendicular cliffs of limestone. On one of these, known as Gale's Bluff, we found a large crevice or cave, in which, among some loose stones and sand, were several human bones; and a skull has been taken from the same place. No bones of animals could be found. The rock above the cave is perpendicular for a great height.

"On the south side of the entrance are some markings (Fig. 36), doubtless of aboriginal origin, and possibly intended to record the virtues of the person or persons whose remains are there deposited. The marks are on a soft, yellow, granular limestone; often mistken by casual observers for sandstone. They are not deeply im-

FIGURE 6. West Section

pressed, and have evidently been affected by the crumbling of the surface."

Reference: Lapham, Increase, Antiquities of Wisconsin, pp. 78-79. Illustration.

Present Condition: Unknown.

Probable cultural affiliation: Unknown. They are very similar to the Friendship Glyphs in Adams County.

2. Samuel's Cave. Petroglyphs (and Pictographs?) (Fig. 11)

Location: Barre Township, S. W. ¼ of Section 20, on old David Samuel farm, and in 1930 the property of Otto Leiske.

Description:

"This curious cavern is situated on the farm of David

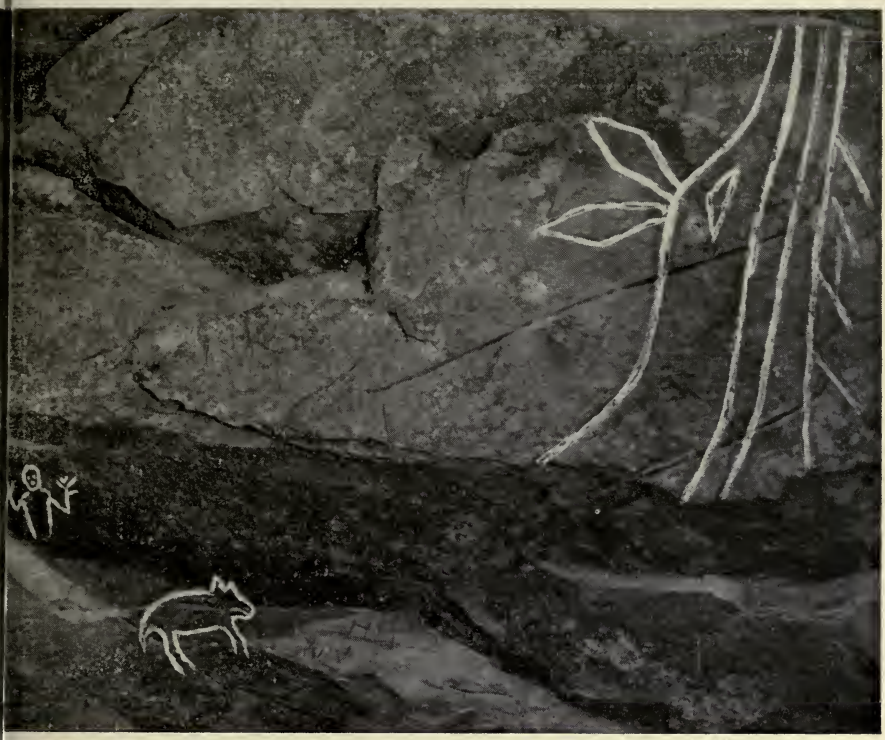

FIGURE 7. East Section

Samuel, in the town of Barre, four miles from West Salem, and eight miles from La Crosse, on the north-west quarter of section twenty, of township sixteen, range six. It was discovered in October, 1878, by Frank Samuel, a son of the owner of the land, eighteen years of age, who had set a trap for raccoons at a hole of considerable size in the hill. Finding that he could, with a little difficulty, crawl into the aperture, which had been dug by wild animals through a land-slide, at the foot of a cliff of Potsdam sandstone, he entered, and finding that it opened into a spacious cavern, he procured lights, and with two older brothers and a friend, explored it. They found the walls extensively covered with pictures and hieroglyphic characters, and charcoal paintings. It thus became known to a few neighbors, and a few boys, who in

the winter resorted to it, built fires and carved their names and their own pictures.

"About the first of June, 1879, I heard of such a cave with such pictures and characters, and immediately visited it. I quickly saw that there was something of much value to the cause of archeological science; that the rude pictures were evidently quite old; that the new closed chamber had been an open cavern in the cliff, which had been closed, not less than one hundred and fifty-years, by a landslide from the hill above. A poplar tree, two feet in diameter, having one hundred and twenty growths of circles, stood as a dead tree twenty-five years ago, when Mr. Samuel first came there, and had rotted and fallen; and a birch tree stood upon the edge of the cliff where the landslide had passed over, of from one hundred and fifty to one hundred and sixty annular growths. I visited Mr. Samuel and informed him of the value to science of the inscriptions and possible discoveries to be made by digging. He immediately took measures to stop the vandalism that was fast destroying them; to enlarge the opening, and clear out the sand that had washed in from the land-slide, and half filled the cave. In the meantime I took fac similes of the pictures and characters by pressing tissue paper into the grooves, and with black crayons followed each line to its termination, preserving also its original width. In this way I got perfect outlines; and by placing other sheets over them, in the light of a window pane, took small copies that showed the pictures in their original form and size. I sent one set to Prof. Chamberlain, State Geologist, not intending to make anything public till an examination had been made by an archeological expert, and their value to science ascertained. In the meantime, it having become noised about that I was examining such a cave, I was called upon by the local editor of the "Chronicle," of LaCrosse, to whom I gave copies of some of the most prominent of the pictures, from which hasty and imperfect wood-cuts were prepared, which appeared in the "Chronicle." The

FIGURE 8. Lemonweir Glyphs

article was seen by Mr. Lyman C. Draper, Secretary of the State Historical Society, who wrote to me for information in regard to it. I sent him copies of the pictures, so far as I had taken them, and designated a time June 27—to dig into the bottom of the cave, requesting him to come, or send a competent archaeologist. He communicated with Dr. J. A. Rice, of Merton, Waukesha county, who came at the time appointed, with Mr. Rockwell Sayer, of Chicago. A company of seventeen men repaired to the place, with shovels, wheel-barrows, and other necessary things for exploration. Several intelligent ladies also attended, and prepared a dinner.

"Commencing at the back end of the cave, the sand carefully dug up and wheeled out, every load carefully inspected, and the work continued till the whole had been examined. We came upon four layers of ashes, each from four to six inches deep, and containing charcoal, and burned and nearly vitrified sand-rock. They were separated from each other throughout the whole length and breadth of the cave by layers of clean, white sand, of from ten to fourteen inches in depth. Below the whole was water, of the same level as a marsh that lies in front of the cliff. The lower stratum of sand and ashes contained nothing. In the second were fragments of pottery made of clay and ground shells. These were smooth, and of the oldest kind found in mounds. In the third, more elaborately wrought pottery, the newest found in mounds; with numerous fragments and whole sides of Mississippi river bivalve shells, and a bodkin of bone, seven inches long. This, according to the opinion of old hunters, was of the "hock-bone" of an elk. It was in dry, white sand, and is quite sharp and smooth with use, and in a perfect state of preservation, even retaining the glassy polish of wear and handling, as if used but yesterday.

"All the layers had become compact and well stratified, and all contained bits of charcoal, and charred and rotten wood. In the upper layer we found two bones of birds, and two of small animals, and a "dew-claw" of a deer, and a cartilaginous maxillary inferior of a reptile.

FIGURE 9. Twin Bluffs

The four completely diffused strata of ashes, separated by a foot average of clear sand, showed that there had been four distinct periods of occupancy, separated by considerable intervals of time. This was also indicated by two orders of pottery, one always below the other; but nothing to measure the time. The only conclusion we could arrive at was, that the first occupation was very ancient, and the last before the land-slide, or not less than one hundred and fifty or one hundred and sixty years ago. The zone of the pictures agreed best, for convenience of engraving, with the third occupancy, the age of the figured pottery.

"Before the land-slide, it was an open shelter cavern, fifteen feet wide at the opening, and seven feet at the back end. Greatest width, sixteen feet—average thirteen; length, thirty feet; height, thirteen feet; and depth of excavation, after clearing out the sand of the land-slide, five feet. The pictures are mostly of the rudest kind, but differing in degree of skill. Except for several bisons, a lynx, rabbit, otter, badger, elk and heron, it is perhaps impossible to determine with certainty what were intended, or whether they represented large or small animals, no regard being had for their relative sizes. A bison, lynx, and rabbit are pictured in one group, all of the same size. One picture perhaps suggests a mastadon; another, the largest, a hippopotamus; but whether they were really intended to represent those animals is quite uncertain. Others seem to refer to animals yet in existence. Many pictures are fragmentary by the erosion of the soft sand rock on which they are engraved. In one place is a crevice eight feet long, two feet high, and extending inward two and a half feet, with fragments of pictures above and below.

"The appearance and connection of the pictures and characters indicate that they were historical, rather than engraved for mere amusement, and suggest that thorough exploration of the caves may yet shed much light on the history of the pre-historic Aborigines of our country.

"While these representations are exceedingly rude, it is deemed best to preserve tracings of them, to subserve

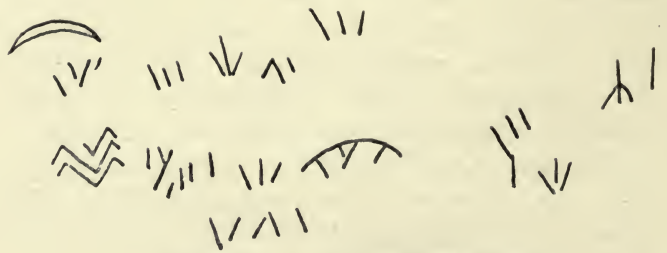

FIGURE 10. Gale's Bluff Cave

the investigations of archaeologists. They were made by placing thin paper over the engravings or paintings, pressing it down, and tracing the lines with crayons. The more important of them are herewith subjoined, having been engraved by Messrs. Marr & Richards, of Milwaukee, in reduced size, with care and accuracy:

No. 1, perhaps, suggests a mastadon, and has the oldest appearance of any in the cave. The size of the original is sixteen inches long, by ten and a half inches from the top of the head to the bottom of the feet.

No. 2, perhaps, indicates a bison, or buffalo, and is the best executed picture of the whole collection. Its size, nineteen inches long, by fifteen and a half inches from tip of the horns to the feet.

No. 3, perhaps a hippopotamus—or, perhaps a bear;

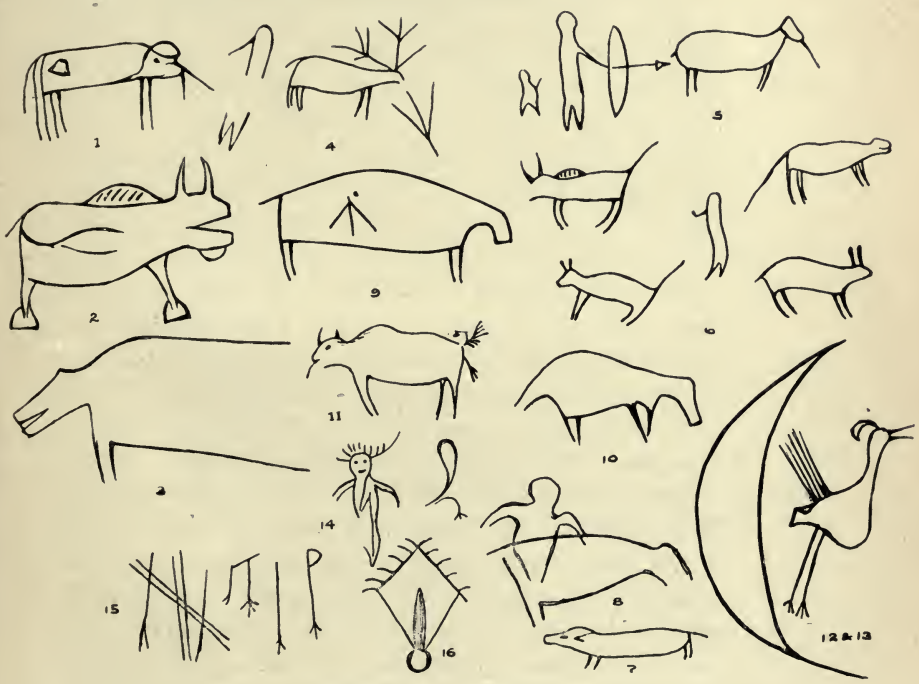

FIGURE 11. Samuel's Cave

the rear portion crumbled off, and the largest representation in the cave. It is twenty-eight inches long, and thirteen inches from the hump to the feet.

No. 4, an elk with its hunter, whole length eighteen inches; the animal is ten inches long by fourteen from tip of front prong of horns to the feet; the Indian, partly defaced, eleven and a half inches high, by four inches from end of arms to the opposite side of the body. The weapon is nine by five inches.

No. 5, represents a hunter, with a boy behind him, in the act of shooting an animal, with his bow and arrow weapon. The whole representation is twenty-five inches long; the animal from tip of tail to end of horn or probiscis, twelve inches, and from top of head to feet, seven inches; the hunter eleven inches high; the boy four and a half.

No. 6, is a group of five figures, representing perhaps a bison, a lynx, a rabbit, an otter, and a rudely formed man—or possibly a bear in an erect attitude. The group, for the convenience of engraver, is not arranged as in the cave—the figures in the original were in single file, covering a space of three and a half feet in length. The bison, the upper left hand figure, is twelve inches long, eight inches from top of the horns to the fore feet, and nearly ten inches from tip of the tail to the hind feet. The lynx, the lower left hand figure, is ten and a half inches from the tip of the nose to the tip of the tail, five and a quarter inches from the tips of the ears to the fore feet, and eight inches from the tip of the tail to hind feet. The otter, the upper right hand figure, is eight and a half inches from the tip of the nose to the end of the body, while the tail is seven and a half inches long; from the top of the rump to the hind feet, five inches; and four inches from the top of the shoulders to the fore feet. The rabbit, the lower right hand figure, is ten and a half inches from the nose to the end of the tail, five and a half

inches from the top of the neck to the fore feet, and five and a quarter inches from the top of the rump to the rear hind foot. The upright figure in the center, is seven and a half inches tall, and three inches from the end of the arm to the back of the body.

No. 7, represents, perhaps, a badger; thirteen and a half inches long, four inches and three-quarters from the top of the head to the fore feet, and three and a half inches from the rump to the ind feet.

No. 8, an Indian painted on the wall, and the rude drawing of an animal cut in the rock—occupying the relative positions represented in the engraving. The animal is sixteen and a half inches from the lower extremity of the head to the tip of the tail, and seven and a quarter inches from the rump to the rear hind foot; while the Indian figure is ten inches in height, and nine and a half inches from the end of one arm to that of the other.

No. 9, represents a wounded animal, with the arrow or weapon near the wound. This figure is twenty-one and three quarters from the lower extremity of the nose to the tip of the tail; eight and three quarters inches from fore shoulders to front feet, and eight inches from the rump to the hind feet. The weapon is four and a half inches long, by five inches broad from the tip of one prong or barb to that of the other.

It may be remarked, that the two prongs or barbs of the weapon or arrow, in this figure, are doubtless altogether too long and disproportioned. We are justified in this supposition, from the general fact of there being no recognition of the relative sizes of the animals represented in the several figures in the cave.

No. 10, an animal, fifteen and a half inches long, eight inches from top of rump to the hind feet, six inches from the fore shoulders to the fore feet, and four inches from top of the head to the end of the nose.

No. 11, probably a bison or buffalo as the hump indicates, painted on the rock with some black substance. From the nose to the end of the body, eleven inches; eight and a half inches from the hump or shoulders to the feet, and seven and a half inches from the rump to the hind feet. As the tongue protrudes, the animal would seem to be in the act of bellowing for its fellows or its young.

No. 12, a heron; from end of bill to the toes, seventeen and a half inches, and four inches from the top of the back to the opposite part of the body.

No. 13, perhaps designed to represent a canoe, twenty-eight inches across from the extreme point to the other, and five and a half inches from the top to the bottom at the largest point.

No. 14, a chief with eight plumes and a war club; eleven inches from top of head to the lower extremity, and six inches and three quarters from the tip of the upper finger to the end of the opposite arm. The war club is six and a half inches long.

No. 15, implements or weapons; the engraving thirteen inches by nine—the one on the right, with a handle, eight and a half inches long; and the arrow beside it, nine inches.

No. 16, perhaps an altar, with its ascending flame; twelve inches in height, by nine wide.

No. 17 perhaps a representation of flames, as given in Quackenbos' History of the United States, edition 1868, p. 24; or it may be designed to represent ears of corn. Twenty-four inches in length by seventeen in breadth; the longest flame, or ear, ten and a half inches, and an inch and a half thick; the smallest three inches long, and three-fourths of an inch thick. WEST SALEM, Wis., July 2, 1870."

Reference: Brown, Rev. Edward, The Pictured Cave of La Crosse Valley. Wis. Hist. Coll. Vol. 8 pp 174-183. See also: Rice, J. A. in same volume pp. 183-187.

Present Condition: Petroglyphs in excellent condition when

examined by McKern in 1929. However, there was no indication of rock paintings as described by Reverend Brown..

Probable cultural affiliation: Upper Mississippi.

OCONTO COUNTY

1. Armstrong Glyphs. Petroglyphs.

Location: Armstrong Township. Town 31, Section 24.

Description:

"I wish to call the attention of antiquarians to a series of hieroglyphics, or inscriptions, in Oconto County, Wis. On south side of Section 24, Town 31, Range 16, E. 4 p. m., is a remarkable rock ledge, granite, in shape a fair horse-shoe, with the open end to west; sides precipitous, and from 75 to 100 feet high, highest point on east; on closed end top glacier marked; a flat planed surface about midway of north arm of horse-shoe, about 20 feet square, on which are the characters here given:

"Since writing you, I have to report: June 12, in company with Col. W. S. Wovel, another trip wis made to the town of Armstrong, near Breed P. O., Oconto County. The purported inscription, or hieroglyphics were carefully studied. Owing to the defaced or worn condition, no impression or tracing was deemed advisable. The granite platform on which they are cut or chiseled, is about 50 feet above surrounding country, and the marks are along a very straight quartz vein, about half an inch across, and extending nearly north and south across the ledge on the northern rim of the horse-shoe heretofore described. This vein is the center line of the characters, as if it were a ruled line on which they had been cut.

"The appearance of the inscription is as if the markings had been deeply cut, then ground off so as to nearly obliterate them, then weathering out in such a manner that perpendicular strokes were like a figure 8; the quartz center line being harder than the granite, has worn away much less. The characters are each about 6 inches in height, quite uniform, and extend a distance of some

8 or 9 feet even to edge of ledge. The surface of the ledge has been fire-swept, and this has caused the rock to become shelly and rotten.

"The first series are nearly as below:

"Careful search was rewarded by finding another series on the south side of the ledge on same north arm of horse-shoe, and some distance to south-east. These seemed much older, or, at least, a greater degree of obliteration prevailed, and are like the first series, along a center line of quartz vein, very regularly spaced, and in height like the first described, and are something like the following:

"I give the figure 8 appearance, caused by unequal wearing away of quartz and granite, which is much greater than in series first described, and is to a depth of ¾ of an inch below the surface of a narrow ½-inch quartz vein, which is itself cut or chiseled to a depth of ¾ of an inch below surface of granite ledge.

"The characters given here of first series are something different from those I first sent you, for the reason that some of the marks on second visit were not wholly identified as man's handiwork.

"That this is human carving, and that it was done many hundred years ago, there seems no doubt whatever; but whether as an inscription or as a sign record, or possibly some way connected with that quartz vein, I cannot say.

"It is certainly remarkable for its age if nothing more, for it shows that civilized men, with tools capable of chiseling the hard granite, and doing it well, were there long before Columbus visited America.

"If any one desires to visit and see for themselves, let them go to Breed P. O., then inquire for Charles White's farm in town of Armstrong, and he will show the place."

Reference: Breed, C. E. The American Antiquarian, Vol. 18, No. 6, pp. 358-359. No illustration.

Present Condition: Unknown. The writer made an unsuc-

cessful attempt to locate these glyphs in 1947.

Probable Cultural affiliation: Unknown. No reproduction of these glyphs exist, so style and subject matter are unknown.

RICHLAND COUNTY

1. Indian Cave. Petroglyphs. (Fig. 12)

Location: Forest Township, in the N. E. ¼ of the N. E. ¼ of Section 11, on the old Donaldson farm, now (1929) the property of Mr. E. E. Potts.[1]

Description:

"This small, but interesting cave, is situated on the top of a wooded ridge, on land belonging to a Mr. E. Potts, in Section 12, (11) Forest Township, in Richland County. This locality is in the rough and rugged country about two miles west of the village of West Lima and five and a half miles from La Farge, in Vernon County. The ridge is about six hundred feet south of the valley road between the two places. Another ridge rises above this road on the south side of which, not far from the cave, is a country school house known as the Muller District school.

"The cave is on the eastern side of a much-eroded outcrop of weathered white and brown sandstone. It is about sixty-five or seventy feet above a small valley which separates this ridge from another wooded ridge a few hundred feet away on the east side of the valley. The ridge slope leading to the cave is quite steep and the climb to its mouth is made with some difficulty.

"The total length of the cave is 23 feet, its width at its

FIGURE 12. Indian Cave

[1] McKern, W. C. 1929. p. 19.

arched entrance being 17½ feet and its height 6½ feet. Above the entrance the overlying sandstone is 2 feet thick. From its mouth the cave narrows gradually toward its southern end within 4 feet of which its width is 44 inches and its height 18 inches. At the middle of the cave, opposite the petroglyphs, the distance from the cave floor to the roof is about 40 inches. The width of the floor at this place is about 5 feet. The floor of the cave is of loose brown sand, near the entrance from 1 to nearly 2 feet in depth and becoming shallower towards the end of the cave where its depth is from 1 to 2 inches. The roof is for the most part rather flat and it and portions of the walls are much blackened by the smoke of candles, stick torches and lanterns used by visitors to this shelter.

"The petroglyphs are nearly all on the east wall of the cave, the nearest at a distance of 10 feet from its mouth. The total length of this line of rock carvings is 58 inches. At the end nearest the mouth of the cave the carvings are 22 inches above the floor and 11½ inches below the roof, at the middle 19 and 10 inches and at the southern end of the line 24 and 9 inches. The height of the principal figures in the line of carvings is from 7 to 9 inches. The sandstone wall in which these figures are cut is fairly hard, much harder than the wall in some other parts of the cave, where it is easily cut or scratched. The cutting was probably done with a stone knife or sharp-edged stone, although a metal knife may have been used for this purpose. The cave, even in broad daylight, is rather dark near the figures and a candle or other light is needed to clearly make them out. The wall is not very smooth and the line of carvings is in several places crossed by small transverse cracks. The cuts outlining the figures are from ⅛ to about ½ inch wide, some of the deepest being nearly ½ inch in depth at their deepest parts. Some have the appearance of having been cut with an implement, the blade of which varied in thickness.

"Beginning at the end of the line (that nearest the

entrance of the cave), the principal figures in the petroglyph on this wall are as follows:

1. A seated figure of a man with marks on his chest, the latter arranged in three pairs. Height of figure 8½ inches, width across the chest 3½ inches.
2. Seated figure of a man facing the other. Height 7⅜; 1⅞ inches across the chest.
3. A figure of a man standing or walking toward the foregoing with arms partly upraised. Three small cuts above the head may represent feathers. Height 8 inches, width across the body at the shoulders 3⅛ inches.
4. Figure probably intended to represent a bent bow. One cut crossing it and three diagonal marks beyond it may be intended to represent arrows. Height of bow 7½ inches, width across at its middle, 2½ inches.
5. A hand-shaped figure. Height and width each 4 inches.
6. Figure of an animal, probably representing a dog or wolf. A curving line extends from the nose through the body. Length of figure 7 inches, height 6½ inches.
7. A hand-shaped figure. Height 7 inches, width 5 inches.

"Nearly vertical, diagonal and curved lines of unknown significance are between some of the several figures. A curious small figure, which may be intended to represent a bird, is located near the shoulder of the first seated figure. An undulating horizontal line is cut beneath all of the figures.

"On the opposite wall of the cave, at a distance of a foot above the floor, there is an imperfect carving suggesting the head of a man. Near it is cut another rude figure, probably an animal. The height of the animal figure is 6½ inches. The body of the man has disappeared in the crumbling of the rock. At this place the wall is of a light brown color and the carving has a fresh and somewhat more recent appearence than the

other figures. The carvings in this small cave have been known to settlers in this valley for many years. One of these men, a Mr. Hyde, stated in 1922 that he had known the carvings for fifty-four years. They are very Indian-like in their character and there is no present reason to believe that they were cut by other persons.

"This cave was probably used as a shelter by Indian hunters, one of whom was the maker of these rude carvings which are but slightly weathered and do not suggest any great age. They may even have been cut by a native after white men first began to roam through and settle in this region of wooded ridges and fertile valleys.

"Mr. Wallace Fruit of Viola first informed the Wisconsin Archeological Society of the location of this cave in a letter dated November 6, 1920. His niece, Miss Ethel T. Rockwell, of Madison, had heard of the cave and referred the Society to him. On November 1 an exploring party consisting of the writer, Mr. H. E. Cole, Mr. M. S. Crandall and Mr. T. T. Brown visited the cave under the guidance of Mr. Harold Jewell, a resident of the country near West Lima. At this time measurements and photographs of the cave were made and also photographs, drawings and impressions of the carvings. The earth and sand floor of the cave were carefully dug over down to the undisturbed sandstone rock but no ash bed, implements, or other indications of Indian occupation were found. This cave, though small, would provide shelter for at least a dozen people."

Reference: Brown, C. A. Wis. Arch. N. S. Vol. 5, No. 1, pp. 20-23. 1 illustration. See also McKern 1929 p. 19. 1 illustration.

Present Condition: Excellent condition when examined by McKern in 1929.

Probable cultural affiliation: Upper Mississippi.

TREMPEALEAU COUNTY

1. Trempealeau Rock Shelter. Petroglyphs. (Fig. 13)

Location: Trempealeau Township, 2½ miles northwest of village of Trempealeau.

Description:

"Last November, whilst surveying mounds in the upper Mississippi valley, my attention was called to some

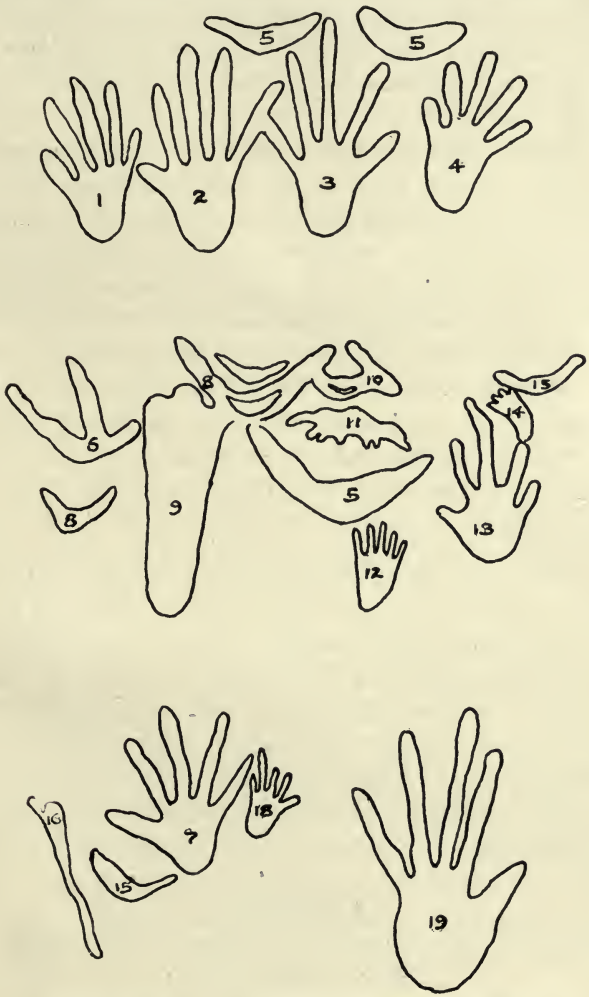

FIGURE 13. Trempealeau Rock Shelter

rock sculptures located about 2½ miles north-west from Trempealeau, Wisconsin. There is at the point in question an exposed ledge of the Potsdam Sandstone extend-nearly one-eight of a mile along the east side of the lower mouth of the Trempealeau river, now known as the bay. Near its north end there is projection extending out about seven feet from the top of the ledge, and overhanging the base about ten feet. The base of the ledge is forty feet back from the shore, and the top of the cliff at this point is thirty feet above the water. On the face of the projection, and near the top, are the sculpture figures referred to.

"No drawings or descriptions of these fine specimens of ancient work having ever been published, I thought it best to copy them for the inspection of archaeologists in a printed form. Whatever distinct markings were originally cut upon the face of this rock are doubtless there now, and the group as traced is complete and entire, and in its primitive condition, for it has not been mutilated by man nor perceptibly injured by exposure to the elements. Great care was taken to obtain correct tracings, the size of nature, and these having been reduced by pantograph the copy remains an accurate facsimile of the original.

"The centre part of the rock projection on which these figures appear, faces to the west, the sides falling back at a somewhat obtuse angle to the parent ledge. Owing to the horizontal extent of the space covered by the carvings they cannot well be shown in one connected drawing, so they are divided here for convenience into three groups of nearly equal size. The following detailed description accounts for all the separate forms, and they are numbered in their natural order from left (north) to right.

North Face

Fig. 1—is an outspread hand 13½ inches long.

West (Front) Face

Fig. 2—is an outspread hand 16½ inches long. The thumb

is cut through the angle of the rock and ends on the north face. The middle finger also extends to the top surface of the rock.

Fig. 3—is an outspread hand 17½ inches long. The two hands (2 and 3) are apparently right and left hands, the little finger of one overlapping that of the other.

Fig. 4—is an outspread hand nearly 13½ inches long.

Figs. 5, 5—are five so-called canoes. They are somewhat crescent shaped, but all vary more or less in outline.

Fig. 6—has the same form as the preceding, but the additional upright portion overlaps it.

Figs. 7 and 8—are also of the same form as 5, but 7 is cut in the bottom of 8.

Fig. 9—probably represents a fort, and its length is 18½ inches.

Fig. 10—is a nondescript, and it partly overlaps 8.

Fig. 11—is a nondescript four-legged animal. Its length in a straight line from the end of the nose to the tip of the tail is 10½ inches.

Fig. 12—may be intended to represent a foot, but possibly it may be a hand. It is 7¼ inches in length.

South Face

Fig. 13—is an outspread hand a little over 13 inches long

Fig. 14—undoubtedly represents a foot, and it is 4½ inches long.

Figs. 15, 15—are of the same class as Figs. 5.

Fig. 16—has the appearance of representing a bone, although somewhat distorted.

Fig. 17—is an outspread hand nearly 14 inches long.

Fig. 18—is an outspread hand about 6¾ inches long.

Fig. 19—is the largest hand, and deserves a more particular description. The palm is 10 inches long and 8¼ inches wide. The length of the thumb is 5¼ inches, of the index finger 10¾ inches, of the middle finger 13½ inches, of the ring finger 11½ inches, and of the little finger 9¼ inches.

"These figures are sunk in throughout—intaglios—in-

stead of being mere outlines, and vary in depth from a quarter of an inch to fully one inch. Although the surface of the rock is rough the grooves were rubbed perfectly smooth after they were pecked or chiseled out."

Reference: Lewis, T. H. The American Naturalist. Sept. 1889. pp. 782-784. 1 illustration. See also Brown, C. A. Wis. Arch. N. S. Vol. 5, No. 1, pp. 16-19. 1 illustration.

Present Condition: Destroyed by road-builders.

Probable cultural affiliation: Unclassified and unrelated. They seem vaguely reminiscent of the feet incised into the rock at Barnesville, Ohio (See Shetrone, H. The Mound-Builders p 234), but no tie-up is here suggested.

2. Galesville Rock Shelter. Petroglyphs.

Location: Gale Township. Glyphs occur on ledge above east bank of Beaver Creek on outskirts of village of Galesville.

Description:

"Rock Shelter at Galesville, the sides of which are covered with carvings representing snakes, birds, mammals, and men."

Reference: Brown, C. A., Wis. Arch. O. S. Vol. 5, Nos. 3 and 4, p. 393. No illustration.

Present Condition: Almost completely obliterated by erosion and carved initials when examined by the writer in 1947. Part of one bird was distinguishable at that time.

Probable cultural affiliation: Woodland, judging from the one bird.

VERNON COUNTY

1. Larson Cave. Petroglyphs. (Fig 14)

Location: Christiana Township, in the N. E. ¼ of the N. E. ¼ of Section 18, on the farm of the present (1929) owner, Mr. Larson.[1]

[1] McKern, W. C. 1929 p. 19.

Description:

"The entrance is six feet in maximum height and ten feet wide, facing west. The deeply grooved petroglyphs

FIGURE 14. Larson Cave

are centrally placed on both walls and exclusively represent human-like figures, arranged for the most part in horizontal rows. The technique is extremely simple and geometric (figure 14).

"All the petroglyphs observed differ markedly from the more recent, historic representations of initials and love signs not only in subject matter but in the greater degree of patination apparent in the coloring of the incised parts. The patina on the primitive incisions is identical to that on adjacent, unworked stone surfaces."

Reference: McKern, W. C. Year Book of the Public Museum of Milwaukee. 1929, pp. 19-20. 1 illustration.

Present Condition: Examined in 1929 by W. C. McKern. Reported as being in excellent condition at that time.

Probable cultural affiliation: Unknown. These glyphs are unique for Wisconsin, but a common type in the Southwest.

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